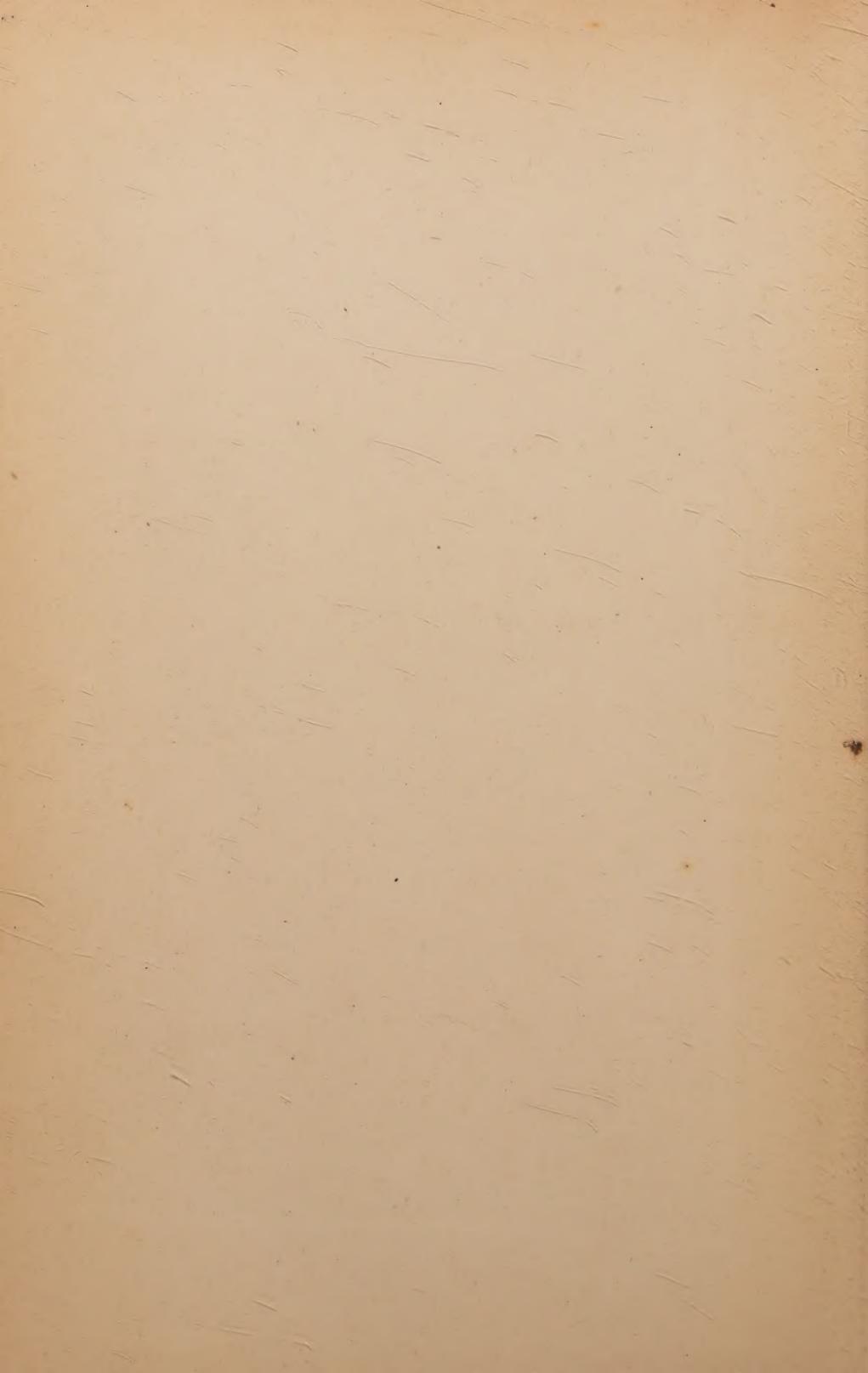




J.C. Park's





EVERYDAY PROBLEMS OF THE COUNTRY TEACHER



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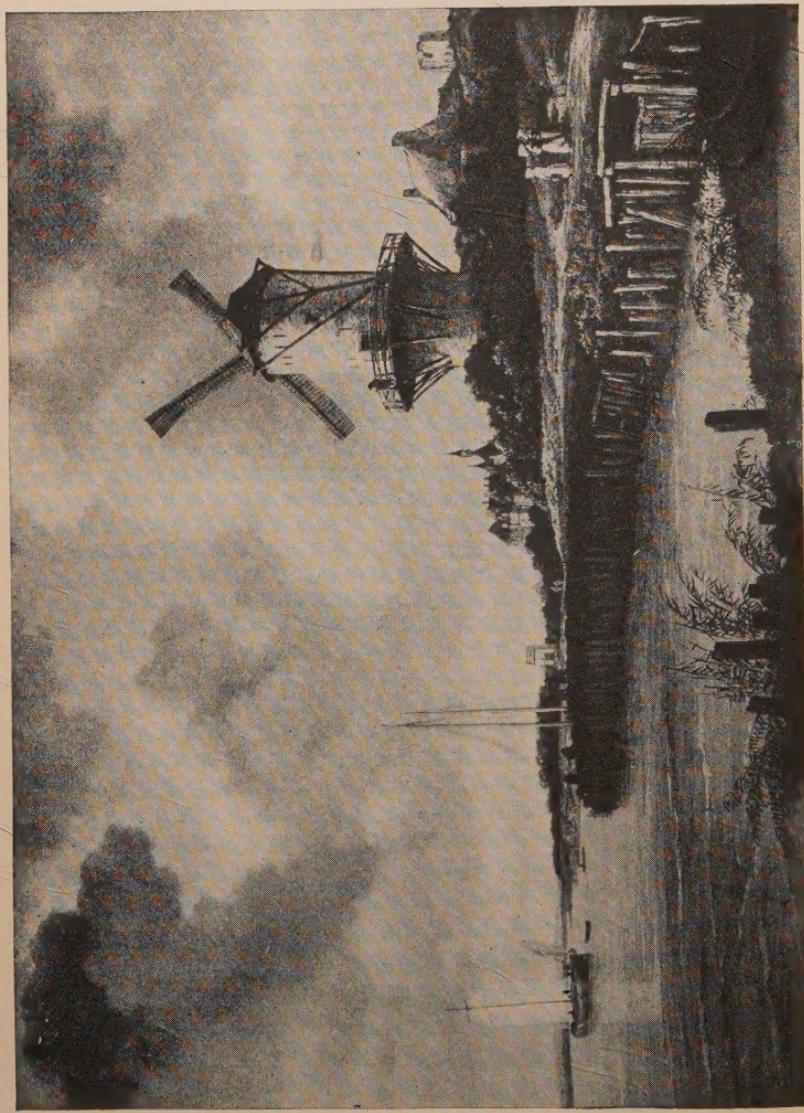
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*Jacob van Ruisdael, from a thesis print. Detroit Publishing Co.*

### The Windmill

This is a suitable picture for a rural school.

# EVERYDAY PROBLEMS OF THE COUNTRY TEACHER

A TEXTBOOK AND A HANDBOOK OF  
COUNTRY-SCHOOL PRACTICE

BY

FRANK J. LOWTH

PRINCIPAL ROCK COUNTY RURAL NORMAL SCHOOL  
JANESVILLE, WISCONSIN

New York

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1928

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TO THE MANY LOYAL AND APPRECIATIVE YOUNG  
WOMEN, WHO, FOR A QUARTER CENTURY, IN TRAIN-  
ING SCHOOL, HIGH SCHOOL, AND INSTITUTE, HAVE,  
BY THEIR RESPONSIVE SPIRIT, ENCOURAGED AND  
INSPIRED THE AUTHOR TO SERVE THEM.



## FOREWORD

It is rather significant that most writers of books for teachers seem somehow to ignore the fact that rural-school conditions are peculiarly difficult. These conditions entitle the rural teacher to all possible light upon her daily tasks. She is assuredly not looking for abstract discussions of educational philosophy, but rather for concrete suggestions on how to solve her many and her immediate daily teaching problems. Modifications and adaptations of grade-school practices are usually necessary in order to make them of value to the rural teacher in her own methods and management.

This book for the rural teacher is written, therefore, because of the somewhat confirmed belief, the result of teacher-training experience, that there is need for a textbook and a handbook of this kind. Its aim has been chiefly to supply a guiding reference book on many of the problems of the average rural teacher in service. The book is also written for young men and women who are *preparing* for rural-school teaching. The book is adapted for class use in the special institutions where rural teachers are being trained — state normal schools, county normal schools, and training classes in high schools. Most books on teaching are not intended especially for rural teachers. In this text the writer has in mind the usual American rural school taught by the average teacher of the present day.

The discussions of these chapters have to do with guiding essentials. For more detailed treatment of class procedures,

the reader and student will find listed an abundance of helpful special books, bulletins, manuals, the various journals for teachers, and other desirable information of practical interest to teachers.

The author feels under profound obligations to Albert Salisbury, who was president of the Whitewater (Wisconsin) State Normal School for over a quarter-century, and up to the time of his death in 1911. This book would probably never have been projected at all were it not for the early and the continued personal influence of this unusual teacher.

To Walter E. Larson, now of Sawyer, Wisconsin, and for many years a most efficient state supervisor of rural schools in Wisconsin, the writer gives grateful credit for valuable suggestions in writing the sections on *beginning school*, *community center meetings*, and the *school society*. Mr. Larson's material in former editions of the common school manual and in two state bulletins has been of distinct value in preparing these chapters.

The author is also deeply indebted to three brother rural-normal-school principals: A. J. Smith, Union Grove; M. C. Palmer, Columbus; and D. A. Swartz, Wausau, for their readings and suggestions; to Miss Maybell G. Bush, state supervisor of elementary schools, and Dr. H. W. Schmidt, supervisor of high schools and manual arts of the Wisconsin State Department of Education, for suggestions and advice; to Mrs. Florence Slown Hyde of the Janesville (Wisconsin) "Gazette" for materials used in this book; to many of his own county normal students for practical suggestions; to the Waterman-Waterbury Company of Minneapolis for help relative to the problem of heating and ventilation; to C. P. Cary, formerly State Superintendent of Public Instruction, Wisconsin, for Chapter VI; to State Superintendent John Callahan, for permission to use the

bulletins of the Wisconsin State Department of Education ; and to Dr. W. J. Osburn, State Director of Educational Measurements, Madison, Wisconsin, and Dr. C. C. Van Liew, of The Macmillan Company, New York City, for valuable readings and suggestions.

F. J. L.

JANESVILLE, WISCONSIN,

June, 1926.



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EVERYDAY PROBLEMS OF THE COUNTRY TEACHER



## CHAPTER I

### GETTING STARTED RIGHT

To confront a room full of alert, active boys and girls in a country school and so to plan and direct their activities from the start that they are all kept profitably busy is no small task. It is quite impossible to overstate the importance of getting started right. The beginner cannot afford to fail before she gets fairly under way. In order not to fail she must be so fully prepared that she will at once be *master of the situation*.

Not only must the children be kept profitably employed, but their coöperation should also be secured from the very start. The work of beginning school in a town or city is small compared with the problems of the rural teacher on the first day. In a city system the duties of the teacher are outlined by the city superintendent, who usually gives detailed directions for doing the work. Not so in the country school, however. Here the teacher must work out her own salvation, sometimes with some perturbation of spirit during the first week or so. If she be a wise young woman, she will keep all of her misgivings to herself. If she is well prepared physically, mentally, and morally, she will come through with colors flying before the first month is over.

#### I. SIZING UP THE SITUATION IN ADVANCE

A rural teacher sometimes has unnecessary difficulty in beginning school because of failure to study her problems in advance. It may sometimes happen that a teacher will get

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into a district and school where the difficulties are of such a nature that she is likely to lose out because of certain weaknesses of personality. A preliminary canvass of the field would likely have revealed facts, which, once realized, might have resulted in a decision to go elsewhere. Of course no young person should be a "quitter" once the task is begun; but it is the part of wisdom to know one's problems and to know them in time to make it possible to decide what to do on the basis of knowledge and not on mere guessing.

The author does not mean to advise the beginning teacher to side-step difficulties or even real hardships; but we are best able to grapple with our problems when we know exactly what they are. Since there are several factors or elements in the situation which confronts this rural teacher, it is the purpose in this section to offer some suggestions which will assist the beginner to make at least a tentative diagnosis of her probable prospects.

The teacher will need to be careful in seeking information. If her predecessor is an intelligent and entirely trustworthy person, she can be of much assistance to the beginner. Often the county superintendent or a supervising teacher is in possession of facts which will prove useful. Sometimes an honest, discreet landlady will be able to help. The members of the board are, by virtue of their positions, in duty bound to furnish the teacher such information as she should have to make her work more successful. Many times they fail to do this, however, and before accepting the position the teacher should possess herself of as many facts as possible, using any available sources of information. To teach a rural school successfully in some districts which the author has known requires courage and even genuine heroism. If the young man or woman has determination, sizing up the situation will result only in a stiffening of the verte-

bræ. The six paragraphs which follow will aid in the process of visualizing and of realizing the problem.

**The people.** It will be well to ascertain the names of the families in advance, as well as the number and the names of the school children in each home, and, if possible, something as to the loyalty and coöperation of each family will also prove to be useful information. If there has been lack of harmony in any case, some knowledge of this may serve as the ounce of prevention. Some parents and children can always be counted upon to work with the teacher; sometimes there are others of a different character. From some homes the children will come regularly and promptly, but in other families the opposite practice prevails. It will be useful for any teacher, especially a beginner, to know such facts as these so that she may govern herself accordingly.

**The board.** Before school begins the teacher should know the names of her board members, where they live, and what children they will send to school. It will be helpful to know which members will probably do their duty and which ones are likely to shirk their responsibilities. The attitude relative to expenditure of money for the school is important, and board members vary greatly in this respect. If the teacher had difficulty with the board the preceding year, it may be well to know the causes and the outcome. A teacher who uses good judgment, and who is thoughtful and courteous, will get along all right with the average board if she also faces her work with courage and confidence.

**The pupils.** The teacher will naturally learn most about her pupils after school begins, but before the first day, if practicable, she should know the number and the names of the children of school age in the district, together with their ages and grades. It will be advisable to know how many are beginners and who they are; likewise those who may ex-

pect to complete the common school course at the end of the year. If any pupils caused trouble the preceding year, or are retarded in their work, or are below normal mentally or physically, or are evilly inclined, information concerning these children will prove valuable to the teacher when she makes her plans for the opening of school.

**The building.** A careful inspection of the schoolhouse and the outbuildings should be made sufficiently in advance so that proper repairs can be made before the first day. Often window lights are broken and the curtains are in bad condition. The stove and stovepipe will need attention, and all ashes and soot should be cleaned out so that the stove will work properly. If last year's teacher had just criticisms of the building, the facts should be ascertained. No teacher should agree to work in a building or under physical conditions which will endanger her health or that of her pupils.

**The equipment.** The best way is to procure a checking list of necessary and desirable items of equipment, and then sometime before school opens to discover existing conditions, such as whether there is plenty of dry wood and kindling; whether the ventilating system is in good working order; and other matters of this sort. Make sure that the drinking water is not contaminated and that there is a clean water tank with a faucet or a clean bubbler. Individual paper drinking cups to be used only once are the best solution of the drinking problem. Take note of the supply of supplementary readers, of individual dictionaries; and see that there is plenty of educative seat-work material on hand. Look for maps, bulletin board, flag, bookcase; and, in general, make sure that all essential tools for school work are in readiness for business.

**The boarding place.** All matters pertaining to the board-

ing place — how far it is from the schoolhouse, the character of the people, the probability of having good food, a desirable room, and the like — should be settled in advance. If difficult children live in the home, the teacher should consider such a problem carefully. Especially should the influence of the people in the home upon the teacher and upon her school be taken into consideration. The problem of the boarding place is not one for an easy-going, thoughtless solution. The trial-and-error method of solution may prove embarrassing and costly. It is better to do some thinking in advance.

## II. BEFORE SCHOOL OPENS — OTHER CONSIDERATIONS

**Go to the district and to your building before the first day.** In order to have the building cleaned and necessary supplies ready for the first morning you may need to go to the school building with your board two or three weeks ahead of time. Some board members are proverbially negligent in getting ready for the first morning, and if you want everything in good shape, you may need to repeat your requests and to *go after* what you want. Specifically, the following matters need attention in addition to what has already been mentioned : (a) All weeds and tall grass should be cut ; (b) the steps should be in repair ; (c) the lock should be a good one and in order ; (d) there should be hooks enough for the clothing of all the children ; (e) there should be a shelf or cupboard for dinner pails, and also for books and supplies.

**Get the register and other records at least a week before school is to open.** You should also have the census list, or some complete list, giving the names and ages of all your prospective pupils. Study the register carefully and especially learn how to pronounce all of the names readily. In some districts this may require a little study and practice.

There should be a record of the classification of your school so that you will know which pupils are to be in each class, *in advance* of your actual need for the facts.

**Learn all about the textbooks.** There should, of course, be a desk copy of each textbook. In case there is not, it will be well for the teacher to find a copy of every text somewhere and to have a general idea of the nature of it before the first morning. It is now the practice in many states and counties for the teachers to leave a record of the pupils in each class, how far they have gone in each text, and where they should begin the first day. If such a record is available, it will be highly useful. If not, try to get the facts in some other way.

**Be sure the building is cleaned.** Do this even if you must take a hand in such cleaning yourself. The board should do its duty and have the building *thoroughly* cleaned. But if they do not, enlist the sympathy and support of a couple of the good mothers. Then, with plenty of hot soft water, soap, and cleaning powder, see that a good job is done — *yourself*. The cleaning and renovating must certainly include the outbuildings, which in some districts are a disgrace to our much vaunted democratic civilization. It will not usually be necessary for the teacher actually to do the cleaning herself, but she should *see that it is done*.

**Visualize your problems.** By the use of your imagination and your thinking powers you should be able to picture the conditions which will confront you the first day. Your problem is to get ready for what you must do. Above all things have on hand plenty of interesting tasks for everybody. The little folks who cannot read or study should have suitable work or else go out to play.

**Get acquainted.** It will be a great asset to the young teacher, or to any teacher in a new school, if she can become acquainted in advance with the members of her board and

with some of the leading people of the district. Should there be any troublesome pupils in the district it may be possible for a friendly, socially minded teacher to get on the right side of these boys or girls through cordial association, before school opens.

**Prepare physically and mentally.** It will surely be a mistake if the teacher is not in good trim in both mind and body for the first day. It will never do to begin school tired out or in a doubtful, hesitating frame of mind. It goes without saying that a teacher whose health is not good starts with a serious handicap. But, granting good health, the teacher should have had several nights of sound sleep, together with plenty of outdoor exercise and regular meals of wholesome food. To start in below par physically is to invite failure. The nerves must be steady, with a good supply of reserve energy. Then, too, the teacher should have wholly, unreservedly, made up her mind that she is going to succeed. She has conscientiously made preparation, and now with confidence she is fully determined to succeed. *She must not fail*, and to that end she must fully make up her mind that she will win out. Her state of mind will have much to do with her success. If she is ready, she need have no fears.

**Consult your county superintendent.** Every beginning teacher, at any rate, should talk matters over with her county superintendent before her school opens. This official can give many helpful suggestions because of personal experience with local, district conditions and problems. The superintendent will be able to give good advice concerning both the pupils and the people of the district, including the board. Have a good talk with your superintendent, ask questions, and get a state course of study if you do not have one.

**Get well settled in your boarding place before the first day, if practicable.** Everything is new and untried to the

young schoolmistress. If she can make sure of a good place in the district where she can be comfortable and feel at home, it will have much to do with her peace of mind and her success. Get on good terms with the people in your boarding place at once. Be friendly and cordial from the start and all of the time. The teacher must not allow shyness to get the best of her. To this end she may very well cultivate the attitude of friendliness.

**Write down what you will say and do.** Every beginner certainly should put down on paper the entire procedure for the first day and perhaps for the first week. If she intends to make a few remarks to the school, which is not at all necessary, she should know exactly what she is going to say. It is not a time, however, for much talking on the teacher's part. The main thing is to proceed to business at once, and to see that everybody keeps busy all day with work that is interesting and worth the doing. Such work must be planned out before the first day.

### III. WHAT TO DO THE FIRST DAY

**Be on hand early the first day.** Read the chapter about Amy Kelly in *The Evolution of Dodd*.<sup>1</sup> Amy would have done better had she looked after the cleaning the previous week, but she and Dodd Weaver became good friends through the cleaning business. In any case, the teacher should be the first one on hand the first morning, even if she has to be there by seven o'clock. And for several mornings she should get an early start.

**Provide seat work.** If among your resources there is plenty of seat-work material you will be fortunate. In addition to such materials don't neglect to have suitable

<sup>1</sup> SMITH, WILLIAM HAWLEY — *Evolution of Dodd*; Rand, McNally and Company.

suggestions for work on the blackboard. You may have study questions, lists of words or phrases, language material, good examples (not problems) in arithmetic, a map to copy and fill in, an outline to work from, a flower to draw, a diagram to draw and study, and anything else that will prove both interesting and educative.

**Keep yourself free.** You must be able to have general oversight of all pupils all of the time. Don't get immersed in a class exercise and forget your school. Don't emphasize the hearing of lessons the first day, if you ever do—and you should never make this mistake. On this first day maintain a consciousness of the whole situation, and do not get sidetracked by any pupil or group of pupils. Any undue absent-mindedness or stupidity on the teacher's part the first day may cause her trouble. She needs to have both her ears and eyes open, but without any attitude of suspicion whatever.

**Do not bother too much about the question of enrollment.** If you do not get every detail as to name, age, and birth date the first day, it will make no great difference. You can usually, however, get the names gradually during the day, and if you have a plat with a little rectangle for each desk, in which you write the name of the pupil, you will find this an aid in associating the name with the face. The older pupils can write their names, ages, dates of birth, and other data you need on slips of paper.

**Be on time.** Begin on time, close on time, have full recess periods and a full noon hour. Possibly longer recess periods than usual might be useful to you the first day. The writer believes that all the pupils in a rural school need two full fifteen-minute recess periods every day, and a full sixty-minute noon period. The smaller pupils need much longer periods out of doors. See Chapter VIII, Daily Program for the Rural School.

**Have singing the first day.** The writer would begin the morning by singing some song the children all know, if possible. Don't trust to the spur of the moment, but have the words either on the blackboard, or on mimeographed sheets, or in enough little song books to go around. Be sure that you can make the singing *go* or don't attempt it. Every rural school should have singing every day.

**Study your pupils.** For the first day you should arrange your work in such a way that you will have opportunity to get at least an approximate idea of the temperament of each child. Of course they will size you up all day, and it will be well for you to be somewhat noncommittal. Maintain a quiet reserve. Be self-controlled and courteous. Use your best endeavors to avoid unpleasant incidents the first day and the first week. An ounce of prevention is often worth several pounds of cure.

**Don't settle the seating problem the first day.** Perhaps to some extent pupils may at first choose their own seats, but you should make it plain that you will reserve the right to change the seating later, if necessary — and it will usually be necessary. Use tact, and do not hurt the feelings of your children if you can avoid it. On the one hand do not make seating a big problem ; but on the other hand, perhaps during the second week, it is your right to reseat the school. The best way is to change seats gradually, and not all of them at once. Make changes in a courteous, friendly, business-like way, without commotion.

**Interest the children with something new the first day.** The first day is a good time to teach something new about weeds, leaves, birds, trees, or something in the natural environment of the children. If the children are able to report at night that they have learned something they never knew before, the parents will be pleased as well as the children.

**Be ready with your program.** For this first day the teacher should have a very definite program of classes, and perhaps it will be better to have even this temporary program posted where all can see it. It is not necessary to include all the classes the first day, but there should be work in reading, language, spelling, arithmetic, and writing. It will be possible to get things to going in the morning on the basis of the reading and arithmetic classes. Additional work in other subjects can be assigned from time to time. It will be useful for the teacher to get a sample of each child's ability in writing during the first day.

**Do not forget the younger pupils.** For the smaller pupils particularly, it will pay the teacher to have in readiness some suitable stories and pictures which can be used as needed. If the teacher is prepared to tell two or three stories well and if she has some picture exercises worked out, the means will be at hand for profitable seat work as well as for class exercises.

**Enter into the games.** At recess time or during the noon hour you may be able to teach the children some new game either out-of-doors or inside. Make up your mind from the start that you will supervise the play at least part of the noon hour. You can easily learn some games to teach the children. See Chapter XI on Play and the Playground.

**Enlist the coöperation of pupils in various ways.** Perhaps the yard will need cleaning up, or several things will need to be done to put the schoolroom into good condition before nine o'clock or during the day. Most children enjoy doing something for the teacher and for the school, and this co-operative work is an excellent means of creating a good school spirit. The individual desks and the library case may receive attention before the day is over, and there are many other housekeeping details.

#### IV. SETTING THE PACE THE FIRST Two WEEKS

**Stimulate self-activity in pupils.** It is important that pupils form the habit as soon as possible of doing their work for themselves. A teacher is under the constant temptation of talking too much and of helping pupils in the wrong way or too much. A teacher fails in her duty unless she constantly makes use of the principle of self-activity, and unless she understands that the only means of pupil growth and development is through active pupil participation.

**Keep class records.** The teacher needs to start the practice the first two weeks of keeping a record of the work of each class. In some school registers there are spaces for such a record, but if there are not, it will then be an easy matter to secure a well-bound notebook in which to set down the needful facts. A rural teacher will find it much easier if she keeps up her records each day and week, rather than attempt to do it all at the end of the month or term.

**Keep a school history.** One of the most valuable habits a rural teacher can form is that of recording in a special book all the main events of the year as they take place. This may be called a diary or school journal, but the writer prefers to use the expression, *history of the school*. Mention special holidays, programs, mothers' meetings, vacations, visitors — everything noteworthy, in fact. This is good training for upper grade pupils.

**Plan for public exercises and mothers' meetings.** Make plans and preparations these first weeks for a simple program of regular class work, and speaking and singing, which may come the last Friday afternoon of the month from two to four o'clock. This program will be best motivated if teacher and pupils keep in mind that on this last Friday afternoon there is to be a mothers' meeting to which every mother in

the district is invited. Work of various kinds should be posted on the bulletin board. Arrangements may be made to serve light refreshments at the close of the program.

**Make clear, definite assignments and hold pupils responsible for doing their work well and on time.** Here, again, the first two weeks are significant in setting the pace for the year. It is a teacher's business to lay out the work and to see that it is done. Give all clearly to understand that you expect them to work and to do what they are asked to do. Be sure, however, that you do not set unreasonable tasks. During the first two weeks you may discover lazy pupils who make a business of shirking. You cannot conscientiously let these people go. They must do their work. See that all of your pupils get the idea that you expect results and that you will not accept imperfectly prepared lessons.

**Nip trouble in the bud.** Keep your eyes open to note what is going on. Don't allow difficulties or bad situations to develop so far that you lose control. If you see trouble brewing in any quarter, don't hesitate, but go after it and head it off. You do not wish to call on board members or parents for help unless it is absolutely necessary. Many times teachers have difficulties which are largely due to the fact that they hesitate, are indecisive, and do not act promptly when action is necessary. Don't permit any pupil to talk impertinently or to argue unduly with you. This does not mean that pupils should not be permitted courteously to express their own judgments. Such expression should be encouraged.

**Discover the leaders.** In every school there are always some children, one or more, who possess the qualities of leadership. They mold the public opinion of the school, and they influence the conduct of other pupils. If these natural leaders are of good character and well-disposed, they will aid the teacher in her work. If, however, they are

actuated by bad motives, then the teacher needs to study the problem. Find out early who these people are — these pupils who may cause trouble. Get them to help you in all sorts of ways. Place them on important committees. Give them to understand that you expect them to help you to run the school right. Grant them some privileges. Trust them as much as you can. Do you remember the wise saying of that wise man, Benjamin Franklin, to the effect that if you wished to win over your enemy, you must *ask him to do you a favor?* Try to make some profitable use of that principle in human nature in your dealings with your pupils.

**Relate school work to life.** During these first two critical weeks — for so they may be if you have a hard school — do all you can to relate the work of the school to life outside of school. Make your school work as *real* as possible. Keep constantly appealing to the children's experiences. Utilize the farm environment all you possibly can. Show the children that you know many things outside of books. Realize that the school *is* life, not merely preparation for living. If you don't know country life and conditions as well as you should, begin at once to study and learn. You may learn much from your older pupils, if you are judicious.

**Keep personal records.** It will be of distinct value for you to start to keep personality or character records during the first two weeks, or at least during the first month. Secure some strong cards, about four by seven inches, made of manila tag board or similar material. On these cards useful information as to the children's bodily conditions or health may be recorded, and the results of intelligence tests, achievement tests, and class work may be set down. From month to month this card should show the progress of each pupil physically, mentally, and morally.

**Work with your board.** Do not leave your board out of your reckonings. Go to them for advice, but do not expect them to solve your own immediate school problems. You should keep friendly with all the members of your board. At the end of the month arrange to have a meeting of the board at the schoolhouse. Be sure that you are ready for that meeting. Let the board know what you are doing, and do not hesitate to enlist their assistance, in ways that are right and proper.

**Never mind about your predecessor.** She was probably not an angel; neither are you. The shortcomings of last year's teacher are now "ancient history," as Foch says. It will do nobody in any situation any good to talk much about the weaknesses of the other fellow. You may well aim to become a creditable predecessor for your successor, and the realization of such an objective will keep you fairly busy.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. State five useful facts which a county superintendent should tell a beginning teacher about her school and her district.
2. List some helpful seat-work material for first grade pupils for the first week.
3. If you live quite a long distance from your district, how will you manage to have everything in readiness for the first day?
4. Examine three or four different kinds of registers to see what provision is made for keeping any record aside from that of attendance and punctuality.
5. What will you do if, on your preliminary tour of inspection, you find the outbuildings in very bad shape, not only filthy, but all disfigured with marks?
6. Do you think it makes any difference whether or not a young teacher fully makes up her mind to succeed? Discuss the problems of *mental attitude* and the *will to do*.
7. Make out as complete a list as you can of the things which you feel you will need to do the first day. Go into detail, and make your list as helpful as possible for a beginner.

## 16 EVERYDAY PROBLEMS OF THE COUNTRY TEACHER

8. Do you think Amy Kelly was a pretty good judge of human nature? How do you account for her success with Dodd Weaver?

9. What does the author mean by saying, "Keep yourself free," etc.?

See p. 9.

10. How can you get all the names, ages, dates of birth, and classification of your pupils during the first day, without taking the time and attention of the whole school and without courting disorder?

11. Make out a seating plat for a room with six rows of desks and five desks to the row. Write in fictitious names for the pupils, giving age and grade in each rectangle, knowing that three pupils are quite inclined to be mischievous.

12. Name five *new* facts or ideas in nature study, geography, or biography, which you can teach the first day. Why something *new* the first day? Name two stories, two pictures, two games, and two songs you may find it useful to know well for your opening days.

## CHAPTER II

### PERSONALITY AND SUCCESS—THE TEACHER HERSELF

**Teaching is personal.** In order to have a school there must be pupils to teach, a teacher to teach them, and a place to carry on the teaching process. Garfield said that for him the essentials of a first-class school would consist of a log with Mark Hopkins on one end and himself on the other. This was, indeed, a great tribute to a remarkable teacher, and it illustrates the fact that the teacher is the outstanding influence in the school environment. As is the teacher so is the school. Good equipment, including suitable textbooks, is certainly important ; and method, or technique, is likewise a significant factor in successful teaching. But no method will work itself ; the procedure will succeed only as a teacher of right personality is back of all teaching details, no matter how modern the building or how complete the teaching accessories.

**What is personality?** By personality is meant the sum total of all those attributes which go to make up character. People vary in personality because they possess different ideas, ideals, and habits. No two persons can possibly have the same personality because different experiences have molded their lives in different ways. We know a person's personality by the way he reacts to situations. How he thinks, what emotions have become habitual with him, whether or not he can be counted upon to act when action is necessary — these are all vital characteristics of anyone's personality. This book deals with the rural teacher. We

know that some rural teachers, like those in urban schools, are weak and others are strong in personality. The teacher of weak personality has but little influence. She is largely a hearer of book lessons. There does not emanate from her



**Old Frances E. Willard Schoolhouse, Wisconsin**

In this building Frances Willard attended school as a country girl, and here she taught her first school as an eighteen-year-old young schoolmistress.

that personal force which should pervade all the work of the school.

On the other hand, the strong teacher is constantly to be reckoned with. In everything that she does her personality exerts a distinct influence upon the lives of the boys and girls in her school. The ideal teacher of strong personality usually possesses surplus nervous energy. She has good health. She teaches out of the abundance of her energy. She is strictly honest in all things at all times; she is sincere; she

is a worker; she loves boys and girls. She maps out her own programs; she is alert and decisive in action; she possesses common sense. This teacher takes large views of the problems which confront her. She is not small and mean in her estimates of life and of its responsibilities. She thinks straight; she is cheerful and good-natured; she can make up



New Frances E. Willard School

Two districts have combined; children from both now attend this school, which is located some distance from the old Willard School.

her mind on a course of action and stick to it. She is not vacillating; neither is she obstinate nor stubborn in her relations with her pupils, the parents, or the board. Consider the opposites of the characteristics just mentioned and you will get some adequate notion of the weak teacher.

**Can personality be changed?** There is no doubt about it, whatever. Every young teacher can change her ideas, her

ideals, and her habits, and therefore she can change her personality or character. Were this not true the situation would, indeed, be a discouraging and even hopeless one. Too many young teachers are apt to say: "Well, I was born that way; our family has certain inevitable characteristics; my temperament is thus and so, and it is useless for me to try to change. I cannot do it." Such talk is very bad, indeed, and does not take into account the tremendous possibilities of education, reeducation, the changing of ideals, and the forming of new habits. The author has witnessed definite and even pronounced modifications of personality in young men and women time and again. This has been one of his most encouraging experiences as a supervising high-school principal and in training rural teachers.

Let us suppose, to illustrate, that a young woman has a quick temper. She can learn to control it; just how to do this should be made an immediate, personal problem for her and for those who are supervising her. Another beginning teacher finds that she does not keep up the loose ends. She is unsystematic in her thinking, and her room is in disorder most of the time. Here is a rather common defect of personality; the only thing to do is to diagnose the situation thoroughly and then to set about a well-defined plan of remedial measures. One could go on at length citing deficiencies and noting the possibility of change. Of course no young woman will change her personality unless she takes herself in hand. If she is lazy, indifferent, and lacking in energy, she will go on in the same old way from one year's end to the other. If the supervisors find this to be the case, means should be discovered to eliminate such a hopeless individual from the county force of teachers. Possibly she will get married; thus the problem of shiftlessness will be transferred from the school to the home, where the human

influence will be lessened so far as numbers are concerned, but where the problem will still exist.

**Contagion of teacher personality.** It has already been indicated that the teacher is the essential element in determining the success of any school. In this connection attention is called to the fact that children are natural imitators, and that character in large part is *caught* and not *taught*. The average child is quite helpless in this matter, for either consciously or unconsciously, or both, he will imitate the teacher in all sorts of ways. He will copy the teacher's faults as well as her virtues. He will do as the teacher does, in some measure, even in the matter of personal mannerisms — ways of standing, walking, talking, reading. Some pupils read with the rising inflection and answer questions in the same way because the teacher does. What a responsibility this places on the teacher, for whether she wishes it or not, she is a constant example before her school, for better or for worse! It cannot be otherwise.

Pupils imitate a teacher's ways of thinking; if the teacher is a clear, logical thinker the children will learn this art even though the teacher may not directly teach it, as she should, of course. If the teacher is a person who sets up clearly defined problems for solution and then proceeds to solve these problems in accordance with successful lines of procedure, pupils will unconsciously catch this way of doing. If the teacher is a mechanically minded person who uses her memory chiefly and accepts book statements without any challenge, pupils will do likewise, greatly to their detriment. If the teacher is cheerful, the pupils will be cheerful; if the teacher is a grouch, the pupils will tend to become grouchy. If the teacher is optimistic, the pupils will imitate her state of mind; and it is easy to make children into little pessimists if they are obliged to associate with a gloomy, doubting teacher.

**The tone of the school.** The emotional tone of the school, or the spirit of the school, is one of the most evident as well as one of the most important attributes of the school. It does not take an observing and thoughtful supervisor long to judge a school, and to get at its dominant tone or spirit. It goes almost without saying that the spirit of a school is largely a reflection of the teacher's spirit. As is the teacher, so is the school. Are teacher and pupils on friendly terms? Is there an atmosphere of success? Are teacher and pupils coöperating cheerfully and effectively? Is there a spirit of work? Are the right motives being used to get the work done? These are vital questions.

In some of the schools which the author visits the problem of discipline is almost entirely absent because the system of the school and the spirit in which the work is done are such that the children have no time or desire for mischief or for going against the teacher's wishes. The teacher is a real leader, not a driver. She suggests, she makes careful plans, her assignments are clear and explicit, the children know just what to do, and they are anxious to see that the school is a success. During recitations the conversational tone and method prevail. There is no loud talk, no wrangling, no jangling. There is a quiet, friendly, coöperative accomplishment of definite purposes. Some schools need to be toned up and others need toning down. The author believes that he can usually get at the dominant tone of any school inside of ten minutes. The mutual attitude of teacher and pupils soon manifests itself. Every teacher will do well to analyze her own motives and to test her characteristic attitude and spirit. If she finds herself peevish, faultfinding, fretful, gloomy, irritable, cross, inclined to argue over trifles, she would do well to make some self-analysis of her motives, attitudes, and habits. It is most unfortunate for a teacher

to spread the poisoning contagion of an irascible, unhappy spirit in a school of susceptible and impressionable boys and girls.

**Essential attributes of personality.** As has been said, one's personality is simply the aggregate of his attitudes, abilities, interests, ideas, ideals, and habits. The list is a long one. It would pay any teacher to make out a list of say twenty-five personal qualities, and then to check herself up to see where she stands. Mark each attribute on the basis of one hundred. For example, a teacher may mark herself 100 on honesty, but only 60 in initiative. She may be worth 95 in sympathy, but only 65 in accuracy. Try it out; it is an interesting problem. For the successful prosecution of any enterprise, such as teaching a country school, for example, certain personal characteristics or habits are indispensable. A successful country teacher needs energy, enthusiasm, self-confidence, interest in people and affairs, persistence, willingness to coöperate, ability to take defeat gracefully, ability to read rapidly, the desire and the habit of reading good books, old-fashioned grit, gumption, common sense (sometimes an uncommon quality), average native capacity to understand and appreciate, good health, self-reliance, sympathy. This is quite a list, but try your hand at making it an even twenty-five. Of the seventeen named above, which ones do you think should be omitted?

**Score yourself.** Underline the following adjectives which most closely apply to you, personally:

1. *Scholarship* — Superior, good, fair, poor.
2. *Ability to hold attention of class* — Marked, fair, slight.
3. *Success in teaching* — Decided, good, moderate, poor.
4. *Success in managing* — Decided, good, moderate, poor.
5. *Spirit of pupils* — Interested, boisterous, mannerly, rebellious.

6. *Voice* — Pleasing, shrill, indistinct, too high, fair, poor, good.
7. *Appearance of room* — Tidy, ordinary, unsatisfactory.
8. *Decoration of room* — Attractive, overdone, unattractive, lacking.
9. *Discretion* — Marked, moderate, lacking.
10. *Social activities* — Excessive, reasonable, lacking, questionable.
11. *The teaching* — Rambling, mechanical, stimulating, showing initiative, requiring independent thinking on essentials, confined to text, topical.
12. *The questions* — Thought-provoking, suggesting answers, answered by *yes or no*, irrelevant, vague, repeated.
13. *Personality characteristics* — Slow to react, disorderly, unruly, serious, harsh, lax, irritable, unreasonable, courteous, enthusiastic, firm, cheerful, patient, impatient, sarcastic, too talkative, too rapid in speech, wasteful of time, accustomed to scold.

**They did more than teach.** *A high-school principal.* He was a college graduate, and when he became principal of a little town school in a middle western state he was not yet thirty years of age. He had great faith in education and in boys and girls. He changed the course of study and made it more practical. He introduced the objective and experimental method of study in physics, physiology, and other sciences. Apparatus was purchased and the work in science was placed upon an entirely different basis. He inspired his young people to complete the high-school course and to go on to higher schools. He expected a good deal of his students, and most of them responded. Incidentally, he was a first-class baseball pitcher; so he became the idol of many of the boys. He is mentioned here because he exerted a virile, wholesome, uplifting influence on his high-school students, inspiring them to be and to do.

*A normal school president.* He was a most conspicuous

example of an intellectually honest and sincere thinker. He was also one of the clearest, most accurate thinkers. This man's morning talks were models of clean-cut, logical analysis of subject matter. He got things straight ; there was no confusion, no side-stepping ; all his ideas were set forth in distinct, definite order. Such an example is a tremendous influence upon student personality.

*A county superintendent of schools.* This very able man was a gentleman of the old school. There was a finish to what he said and did which was a genuine inspiration to the young men and women who were fortunate enough to begin the big business of teaching in his county. He was very particular in his dress and in everything pertaining to his personal appearance. In all details he carried out examinations and conducted institutes and teachers' meetings in most excellent style. He was an accomplished public speaker, a master in the use both of oral and written English. From this fine, scholarly gentleman the young teacher learned many of the ennobling courtesies and amenities of life. Teaching took on new meaning, and honor loomed large as one of the essential qualities of mind and heart which animate the good teacher.

**Lessons in fiction.** Have you read *The Evolution of Dodd*<sup>1</sup> and do you thus know Charles Bright and Amy Kelly? If not, you have several happy and profitable hours of reading before you. Many find in Charles Bright certain qualities of personality which aided him in solving problems of discipline. Perhaps Bright did not handle Dodd Weaver, the wayward son of a Methodist minister, as some of the readers of the story would do it. But he did it in his way, and he succeeded ultimately in saving the boy and the young man. And to save boys to something worth while in life is a very great ac-

<sup>1</sup> SMITH, WILLIAM HAWLEY — op. cit.

complishment, a much greater one than the "machine" can boast of. Charles Bright had a strong, masterful personality. He constantly made an impress for good upon the boys and girls in the schools over which he presided. He was a real man. Read the story and read between the lines. It is the best pedagogical story ever written, and William Hawley Smith gave the world a masterpiece when he wrote it thirty-five years ago. In this same story you will find Amy Kelly, an eighteen-year-old rural teacher. She made a mark on Dodd, too, and it was an influence for good which years only tended to accentuate.

Of course every rural teacher reads, or should read, *Jean Mitchell's School*.<sup>1</sup> There are many lessons in it for the rural teacher which exemplify the everlasting truth that the teacher's personality is by far the largest factor in the work of the school. Jean Mitchell had her troubles; but her ingenuity, her thoughtfulness, her love for boys and girls, her desire to really help — all enabled her to solve her problems. If you have not read this story, you owe it to yourself to do so.

And there is that old, yet still new, story, *The Hoosier Schoolmaster*.<sup>2</sup> Here Edward Eggleston exemplifies some of those great and inevitable truths of our human relationships which the successful teacher needs to know. The young schoolmaster made good. How did he do it? Read, and find out. These three books do not exhaust the list, though the first and last possibly stand near the top. Some other stories having useful lessons for teachers are: *The Brown Mouse*; *The Fairview Idea*; *Persimmons*; *Emmy Lou*; *Glengarry School Days*; *Beside the Bonny Brier Bush*;

<sup>1</sup> WRAY, ANGELINA W. — *Jean Mitchell's School*; Public School Publishing Company.

<sup>2</sup> EGGLESTON, EDWARD — *The Hoosier Schoolmaster*; Grossett and Dunlap.

*Rebecca of Sunnybrook Farm; The Story of a Great Schoolmaster.*

**The intangible influence of personality.** A teacher teaches by what she *is* more than by what she *says*. Long years ago Bishop Huntington wrote an essay on "Unconscious Tuition." The unconscious influence of a teacher is hard to get at in mathematical terms, but it is there, nevertheless. There is a subtle emanation of spirit which goes out from the inner life of a teacher no matter what she thinks, or says, or does. In our day we are becoming pretty thoroughly committed to the idea of measurement ; standard tests and measurements have no doubt come to stay. We are measuring intelligence and we are measuring the achievements of boys and girls ; but who ever heard of measuring a mother's love or the good a teacher does if that teacher is a high-minded young man or woman ? The fact of the matter is that the finer spiritual forces and values cannot possibly be measured. The contagion of a teacher's example is far too spiritual an influence to get at through any score card or by means of the most delicate tests yet devised. A teacher who loves beautiful pictures, a teacher who takes delight in *The Daffodils*, or *The Bugle Song*, a teacher who enjoys *A Perfect Day*, or *Love's Old Sweet Song* — such a teacher can hardly transfer her appreciations over to boys and girls by direct instruction. But if she loves beautiful music and beautiful literature, the boys and girls will catch her spirit. If she does not love good things, then so much the worse for her and for the children under her charge.

**What can you do about it?** If a teacher believes that personality is the determining element in the teaching business, that personality can be changed, and that one does not have to accept herself always as she now is — if she believes all this, there are several things she can do :

*One.* Make a study of the nature of personality. Get such a book as *The Personality of the Teacher*,<sup>1</sup> by Charles McKenny, and make a study of the elements of personality. The author discusses sympathy, sincerity, dynamic knowledge, good breeding, growth in personality, the joy of living. You will find such a book useful in getting started. It will pay any teacher to read an article on *Personality* in "The American Magazine," April, 1924. This is the report of an interview with Dr. W. W. Charters by M. K. Wisehart, in which a method of improvement is indicated and a chart of twenty-five essential qualities presented.

*Two.* Make out a score card for your own use. Select ten of your most characteristic elements of strength and ten of weakness. You can easily mark yourself upon these points; or better yet get some honest friend to mark you on each one, using a scale of 100. Your list of ten positive elements might be the following, for example: (1) health, (2) honesty, (3) sincerity, (4) sympathy, (5) industry, (6) initiative, (7) thoughtfulness, (8) kindness, (9) courtesy, (10) spirit of service. Your list of ten undesirable traits of character might include these: (1) procrastination, (2) untidiness, (3) carelessness, or thoughtlessness, (4) inaccuracy, (5) unpunctuality, (6) conceit, (7) unresponsiveness, (8) inattention, (9) indistinctness of speech, (10) habit of not seeing things — not observing.

If a teacher does not sense her shortcomings she will never improve. The best way is carefully to formulate the problem, and then to study it scientifically by use of a score card and in other ways.

*Three.* Read good fiction and good biography. Many a useful lesson in personality may be learned in this way. For example, what a universal truth Robert Louis Stevenson

<sup>1</sup> Row, Peterson and Company.

enforces in *Dr. Jekyll and Mr. Hyde*. One cannot read the life of Theodore Roosevelt without becoming inspired to lead a more strenuous and a better life.

*Four.* Take part, as found practicable, in the affairs of the community and in professional circles. A teacher will develop her personality, for example, if she does her duty at teachers' meetings. A chance to serve on a committee or to appear on a program is a chance to grow in personality.

*Five.* Look upon all your relations with your pupils as an opportunity to develop personality. If you cannot speak forcefully and effectively, each day in school will give you a chance to improve in this regard if you will consciously make the effort. Cultivate clear, distinct utterance, clear thinking, and logical analysis of thought.

*Six.* Seek the acquaintance of men and women of character and influence. Character is caught and not taught, and the mere association with persons of large mental and moral caliber will do much to enlarge the life and the personality.

*Seven.* When things go wrong in school, as they surely will at times, try to find out what is the cause of the trouble. Many times the teacher is at fault rather than the children. Maybe the teacher lost her temper, or was too hasty in her judgment, or was careless in laying out the work for the class. It will often happen that the teacher will discover her own personal shortcomings to be the real cause of the difficulty. Self-analysis and self-criticism are needed if the teacher is to get on to higher levels of life.

*Eight.* Visit some good teacher and try to discover why she succeeds. Nine times out of ten her success will be due to a certain combination of essential personal qualities, which she will do well to analyze and to view in their bearings. School visitation is an excellent opportunity to study personality.

*Nine.* Make a careful study of the character of one or more pupils in your school. You will find it useful to rule a sheet of paper so that you can record items concerning the pupil's character from time to time. In some school systems accurate personality records are kept, and passed on from year to year and grade to grade. You can make a beginning in this direction, and you will personally be the gainer.

*Ten.* Teach boys and girls; don't teach subjects. When a child does not know or cannot do, find out the cause. In other words, form the habit of mental analysis and personal diagnosis. Instead of teaching mechanically, teach intelligently, which means that you will study carefully the way in which human personality grows and develops.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Set forth evidence of the truth of this statement: "As is the teacher, so is the school."
2. Write out a list of twenty-five attributes of personality which you can use in studying the characters of your pupils.
3. Name ten personal or character habits which you think may interfere with a teacher's success, and ten which you believe are vitally important, in order to succeed.
4. Illustrate the fact that the habit of prompt, decisive action is necessary in the life of the teacher.
5. Give three real-life illustrations to show that a teacher can change her personality by persevering effort.
6. Just why is the tone or spirit of the school so important a matter? Indicate in some detail what sort of a spirit you would like to have in your school.
7. In the case of some teacher who has been an inspiration to you, what qualities of mind and heart were the basis of the helpful influence?
8. Is it worth while to train boys and girls to think straight? What effect has the habit of clear, accurate thinking upon successful living? What damage can be caused by muddy thinking?
9. Comment on the influence of the county superintendent mentioned above. Do you think the habit of courtesy has commercial value in addition to its usefulness as a social lubricant? Illustrate.

10. Read the chapter in *The Evolution of Dodd* in which the experiences of Amy Kelly are depicted. Does William Hawley Smith overdraw the picture in your estimation? Indicate the portions of this famous story which you think are out of date.
11. Write a list of ten important lessons in the business of teaching which you get from *Jean Mitchell's School*. Criticize this teacher from the standpoint of modern practice.
12. What lesson in personality do you get from Stevenson's *Dr. Jekyll and Mr. Hyde*? Has human nature changed much since this story was written?
13. The following qualities of personality were listed for Dr. F. L. Clapp of the University of Wisconsin by one hundred experienced superintendents. Afterwards, one hundred and forty superintendents ranked their five best teachers on the basis of these qualities, and thus the following order of the qualities was secured: (1) address, (2) personal appearance, (3) optimism, (4) reserve, (5) enthusiasm, (6) fairness, (7) sincerity, (8) sympathy, (9) vitality, (10) scholarship. Mark five teachers whom you know well by the use of this scale, and then mark yourself. Why is "address" an important attribute of personality?

## CHAPTER III

### THE TEACHER'S HEALTH

**Good health a vital need.** Good health is of the utmost importance for all classes of workers, but for the teacher the need for vigorous health is seen to be especially urgent when the nature of her work is considered. If there is anything wrong with the teacher's physical machine the effect will be shown in the character of her work and in her personal relations to her pupils. By the use of her will power she can rely on her nerves, but this is a wasteful and inefficient way of doing; ultimately there will be a day of reckoning. Every teacher who desires to succeed and to make the most of herself personally must necessarily make a study of the problem of personal health and hygiene. This is not a simple matter, but one which requires thought and effort the same as any other problem. Every great thinker (witness the testimony of Emerson and Carlyle) has realized that without health no genuinely significant work can be done for long in this world. A teacher cannot be truly interested in her work or enthusiastic in carrying it out if she suffers from headaches, indigestion, colds, or nervousness.

**Need for surplus nervous energy.** A teacher's work is of such character that what she needs physically most of all is surplus nervous energy. She must have a reserve of nerve force, a good margin of safety, if she expects to do her work well and to be happy in the doing. If day by day she overdraws her capital of energy, she is heading toward certain disaster; moreover, such a manner of life takes all the pleas-

ure and zest out of the daily round of duties. The work of the teacher has to do with personal relationships in which there must be constant social adjustments in order to maintain harmonious conditions. Such adjustment positively demands a good supply of nervous energy. The teacher must keep fit for whatever may come during the day. She is dealing in spiritual and moral values rather than with mere things. She should have a delicate touch and a sensitiveness to the more subtle motives and promptings of her pupils. To be quick in appreciation and in fineness of spiritual discernment, there should be nothing less than a reservoir of reserve force as the necessary physical basis. No teacher who lives on the perilous ragged edge of her physical nature can ever exert the best influence on her pupils. Character, influence, happiness, all depend in the long run on a large reserve stock of vitality.

**Habits — good and bad.** No person can maintain health without the intelligent cultivation of right habits and the elimination of bad habits. If a teacher habitually uses the wrong kind of food, she will ultimately pay the penalty. If she eats too much protein and too little of fruits and vegetables, her body will suffer sooner or later. If a teacher does not sleep with her window open at night, she should not be surprised if she has a dull headache in the morning and feels mentally inert and stupid during most of the day. No teacher can afford to neglect at least an hour or two of outdoor exercise every day in the year. If her digestive apparatus fails to function properly, it may easily be due to the fact that she does not walk enough in the open air. Many teachers do not drink nearly enough water. It will be a most healthful procedure for the teacher to make a business of drinking several glasses of water during the day, whether actually wanted or not. The average rural teacher needs an

abundance of good sleep — not less than eight hours. She will find that her work goes better, as a rule, if she is in bed by nine-thirty and up by six-thirty. If a teacher is below par in health it will pay her to make a thorough canvass of her daily habits to find out wherein she may be violating nature's laws. We are gradually learning to control germ diseases, but troubles due to wrong personal habits are on the increase.

**The problem of nutrition.** The average rural teacher may understand the problem of the balanced ration so far as cows are concerned, and she may teach this very well in the agriculture class. But has she studied the problems of her own nutrition? Does she have three suitable meals a day? Is she eating the right kinds and the right quantities of food? Such questions cannot be answered without a study of the facts of the case. If a teacher eats a good deal of meat and white bread, if she drinks tea and coffee, if she does not eat plenty of fruits and vegetables each day, it will indeed be a miracle if her body is properly nourished. A wise teacher will cultivate a taste for a variety of foods. The writer recalls his early experience as a rural teacher, and the effect upon him of a too monotonous diet in which too much fatty food ultimately caused disturbance of the digestive machinery. Bulky food materials containing cellulose, raw foods, foods to supply vitamines and mineral salts, foods giving protein in vegetable form — such considerations require thought, if the problem of nutrition is to be successfully solved. Note the references at the end of this text.

**Mental hygiene.** The body influences the mind, and the mind has much to do with controlling body conditions. In the case of the teacher it is of the greatest importance that she keep her mind in a healthful state. This means self-control, poise, serenity, freedom from worry. There are many things which may well cause a teacher to worry, but she must early

make up her mind not to worry. She needs to cultivate the habit of dropping her schoolroom cares and problems at certain times and resolutely turning her attention to other matters. Many a teacher worries about her work because she is not planning it properly. It will pay such a teacher to take time on a Saturday or at some other time to get her bearings and to outline a plan of procedure that will give her more freedom. A teacher must not become a slave to her school or to her work. She needs relaxation and amusement of a natural, wholesome sort. The teacher must somehow eliminate that fatal feeling of hurry, which robs the working day of all its joy. By carefully planning the details of her work she will have time to do it all without hurry or worry. Mental hygiene is largely a question of controlling attention. Our lives are determined by our interests and by what we give attention to day by day. Several good books bearing on mental hygiene are listed in the bibliography at the end of the book. Read especially the books by Annie Payson Call, such as *The Freedom of Life*, and those by Dr. Walton on *Why Worry?* and *Peg Along*.

**Colds and catching cold.** No teacher, or anyone else, for that matter, can afford to have a cold. A cold is a serious business, not so much perhaps because of the immediate discomforts or effects, but rather because of the possible remote results in producing serious disease conditions such as pneumonia, tuberculosis, or affections of the heart, kidneys, and other organs. Teachers should know and appreciate the fact that colds are of germ origin and that they are highly contagious. A poorly ventilated schoolroom is one of the best places in the world for the spread of colds. If the teacher or any pupil remains in school with a cold, all the others are inevitably exposed to the contagion. A teacher should do all in her power to avoid contracting a cold. If

she has vigorous health, that in itself constitutes a valuable safeguard by way of bodily resistance. Germs do not have as good a chance with a perfectly healthy body. A cold can often be nipped in the bud by the use of a hot bath and by drinking large quantities of hot lemonade or some other hot drink. This must be done within a couple of hours of the warning symptoms, if the cold is to be headed off. Soak the feet in hot water, drink several pints of something hot, stop eating, and go to bed where you can sweat and rest. Sometimes weeks of suffering can be prevented in this way. A hot camphor sling — about ten drops of camphor in a glass of water — is useful in some cases if taken within a short time after the first premonitory symptoms of chilliness and stuffiness in the head. Use hot water and sugar.

Colds are often due to digestive disturbances, to derangement of the eliminative organs, to intestinal stasis, or to lowered vital resistance. Failure to breathe sufficient fresh air or to drink enough water will often act as a provoking cause, especially if such wrong habits are long continued. People who take a cool, salt-water, all-over bath regularly every morning in the year — 365 days — seldom have colds. The water should be cold enough to produce a pronounced nervous and circulatory reaction, which can be augmented by vigorous rubbing until the skin is red. If long walks in the open *every day* are combined with this bathing, the vital resistance will be built up and colds avoided. Injections of catarrhal vaccine (respiratory) will act as a real, efficacious prophylactic in a good many persons whose natural resistance has been lowered. Several injections of such vaccine (serum) may be a great blessing to those who need just such specific treatment and who respond to it. As yet the vaccine does not seem to produce results in all cases or always in the same individual.

**Headaches.** Teachers should know that there are many kinds of headaches and that they are due to a variety of causes. No teacher is warranted in going on day after day with a headache. The cause should be ascertained and suitable remedies applied. The only sensible and safe thing to do is to consult a good physician. The worst possible thing to do is to take headache tablets or powders. A headache is a great handicap in the business of teaching and interferes greatly with the work of the school. It is not too much to say that a teacher may easily lose control of the situation if she is subject to repeated headaches. Many times the cause of the headache is defective vision. The only proper course in such a case is to go to a competent optician and be fitted with suitable glasses. The world has become a good place to live in for many a person who had for years been suffering from defective eyesight with its accompanying physical and mental strain and inconveniences. It frequently happens that headache is due to indigestion and constipation. The remedy had best be plenty of vegetables and fruit, several quarts of water a day, the use of roughage in various forms, and more out-of-door exercise and fresh air.

Persistent, chronic intestinal stasis, the great American malady and the cause of many organic diseases, can, in the majority of cases, be cured by taking three tablespoonfuls of bran regularly three times a day, using two or three glasses of water each time to aid in swallowing the bran. If this does not correct the condition, an X-ray examination should be made of the entire alimentary tract. Nothing can be more harmful than the habitual use of laxative drugs. Bran in some cases aggravates a spastic condition.

Headaches are in many cases due to anemic conditions; the blood is too thin, has not enough red corpuscles — due

frequently to malnutrition. A teacher in this condition should consult a competent physician. Perhaps most headaches are of the congestive variety, due to intestinal stasis and toxemia. Poisons are generated in the system, absorbed into the blood stream, and irritate the nerves. Worry and nervousness are causative elements in the headache of neurasthenia. Read some of the books listed below; they will help to cultivate a more rational, happy, optimistic philosophy of life, which the teacher surely needs as much as any worker in any occupation.

**Clothing and health.** Every teacher should strive to dress as becomingly and attractively as her income and financial status will permit. She should try to dress neatly and tastefully in clothing which may perhaps not be, and need not be, up to the minute in style, but which is still not conspicuously out of style. Good clothes are a distinct asset to the teacher; the art of dressing in good taste is one that many teachers do not master. It should be mastered in the interests of personal satisfaction and pleasure as well as for the effect upon pupils and patrons. Aside from the question of appearance there is the larger problem of health. At the present time there seems to be a decided tendency for young women to clothe themselves too thinly. Unquestionably the opposite extreme is also a mistake. But is there not a happy medium? In the schoolroom the temperature should be kept from  $65^{\circ}$  to  $70^{\circ}$ , the nearer the first figure the better. A teacher should dress accordingly, so that she will neither be uncomfortably warm nor dangerously chilly. For out-of-doors a teacher requires outer clothing according to the weather. She should certainly have warm coats, a good raincoat, a pair of adequate rubbers, and high-top galoshes for cold and snow. For the rainy day she should have an umbrella that will protect — perhaps one at the schoolhouse

and one at the boarding house. These requirements are mentioned because many young women are notoriously negligent in such matters. At no time, except when facing a cold wind, should the throat or chest be bundled up, but the head and ears need protection in cold weather. The modern tendency to expose the throat and the upper chest more than formerly is probably a healthful one, on the whole, if not carried to extreme. But a wise young woman uses clothing to conserve her energy as well as to beautify her person. There is reason in all things, but some modern young women seem a bit unreasonable in their attire as related to personal health. Their standards of dress are not always determined by sound sense.

**Exercise and recreation.** If any teacher fails to secure a sufficient amount of out-door exercise and proper recreation and relaxation, both she and her pupils are sure to suffer and to be the losers thereby. Nothing can quite take the place of *vigorous walking in the open air* — say, five to seven miles each day. If the teacher will arrange to walk for an hour in the morning before school and another hour after school she will find it making a big difference in her teaching efficiency. No teacher should remain at the school building as a rule after about four-thirty, certainly not every day in the week until five. She will need to get to the schoolhouse about eight in the morning, as a general practice. The exercise of the teacher has for its purpose not so much the development of the muscular system as such, as the improvement or maintenance of adequate breathing capacity, vigorous digestion, a sound nervous system, a strong heart, and good blood well circulated. A teacher cannot teach well unless she has a good supply of well-oxygenated blood which is pumped to all the tissues and organs by a vigorous heart. Recreation should mean literally *re-creation* for the teacher.

Sometimes it is rest and sleep and sometimes it is exercise. Many amusements instead of building up have a tendency to weaken. A teacher needs social diversion, unquestionably, but if social pleasures do not increase vitality and efficiency they are presumably of the wrong sort.

**Sleep.** It is during sleep that the process of repair and reconstruction goes on most effectively. This is particularly true of the nervous system. Work and fatigue break down or deplete the nerve cells, and rest and sleep restore this depleted energy. The teacher cannot have that poise, serenity, and self-control, which every successful teacher must have, unless she has on hand an abundance of energy. To maintain a good reserve of nerve force the restoration process must go on every twenty-four hours. The average teacher cannot do her best work on less than eight hours of sleep, and when possible this should be increased to nine and ten — on Friday, Saturday, and Sunday nights, for example. Many a young woman makes a great mistake by not getting enough sleep. If the feeling of drowsiness and fatigue becomes quite pronounced about nine o'clock in the evening, it is usually unwise to combat it. The best thing to do is to go to bed and then to get up and do the necessary school work in the morning. The "early to bed and early to rise" adage has much truth in it; in any case it should never be interpreted to mean anything less than adequate sleep for a teacher.

**Saturdays and Sundays.** These days may constitute either an opportunity or a limitation, depending upon the way the teacher makes use of them. No doubt Saturday will be the teacher's opportunity for doing a good bit of necessary physical work in the way of cleaning, washing, mending, and sewing. The physical tire of a Saturday spent in a reasonable amount of physical labor is a worth-while

close of a well-spent and profitable day. If the teacher will plan in advance for this day, she will be less likely to waste her time, on the one hand, or to overdo, on the other hand. Perhaps a portion of the day can well be spent on school work, and it may be that a part of the afternoon can be spent out-of-doors or in some form of wholesome recreation or amusement. Unquestionably Sunday should be a day of genuine rest, a day for quiet reading or for strolling somewhere in God's great and beautiful out-of-doors. It is a day for a change of mental attitude as well. Doubtless the teacher should go to church regularly and perhaps to Sunday school; but she should not, in the writer's opinion, teach a class in Sunday school unless she possesses more than the average amount of physical energy.

**Work and worry.** There are twenty-four hours in the day, and there is ample time to do one's work and to enjoy life as well, if a rational time adjustment and schedule are made and carried out. There is time to do one's work, but there should be no time for worry. Worry is always a useless, wasteful process. It only tears down and destroys. The only way to eliminate worry from our lives is through rational living, which is not entirely a simple affair. We shall not cease to worry simply by saying, "I will not worry"; rather will worry be exorcised only by a genuine effort to live according to the laws of nature and of nature's God in all ways — physically, mentally, and morally. If a teacher is below par physically, if a teacher cannot or will not think straight, if a teacher is not wholly honest and honorable with herself and with others, then she may indeed have true cause for worry. It never pays to worry about school affairs. The best thing for a teacher to do is to close the door upon her school troubles when she goes home at night. A working teacher who plans her work carefully and who is filled with

the spirit of service will have little chance for worry. The cure for worry is carefully planned, wholesome, serviceable work, combined with honest observance of the well-known laws of mental and physical hygiene.

**Physical examination.** Every young woman teacher would find it advantageous to carry some life insurance if possible. In her attempt to secure such protection, she must necessarily undergo a general physical examination. But whether examined for life insurance or not, a complete physical examination by a well-qualified physician every year is a modern precaution against disease which is becoming increasingly common. Such an examination will often disclose lung weakness, heart deficiencies, diseased tonsils, or disturbances of the eliminative organs such as the kidneys, liver, or intestinal tract; very often these diseased conditions, if taken in time, can easily be remedied. No doubt thousands of young persons have died of tuberculosis, diabetes, Bright's disease, and other diseases, which could easily have been remedied if taken in time.

Shortly after this chapter was written the author had intimate personal knowledge of the case of a young woman teacher who became the victim of Bright's disease. About one year before her death, when having her eyes examined for new glasses, her oculist told her that the condition of the optic nerve indicated the need for a urinary analysis. She made rather light of her physician's suggestion, with the result that the dread disease developed and inside of twelve months resulted in her death. Had the necessary test been made in time and had remedial measures been taken at once, this untimely death might very likely have been prevented. Many young women at the present time are suffering from chronic appendicitis which at any time may become acute and dangerous. An examination would disclose a tender,

sensitive appendix. Thousands of young women throughout the United States are having trouble with goiter which can often be entirely controlled, if known, and if the right measures are taken in time. In the field of disease an ounce of prevention is often worth a ton of cure. A physical examination before the day of actual need when disease has become deep-seated, has saved many a life. It is better to be safe than sorry.

**The fifteen rules of hygiene.** The following rules are taken from the best book on personal hygiene of which the writer knows, *How to Live*, written by Professor Irving Fisher of Yale and Dr. Eugene Lyman Fisk,<sup>1</sup> chief medical advisor of the Life Extension Institute. Every teacher should own a copy of this book. It is sound, conservatively up-to-date, and filled with valuable material relating to the conservation of personal health :

1. Ventilate every room you occupy.
2. Wear light, loose, and porous clothes.
3. Seek out-of-door occupations and recreations.
4. Sleep out, if you can.
5. Breathe deeply.
6. Avoid overeating and overweight.
7. Eat sparingly of meat and eggs.
8. Eat some hard, some bulky, some raw foods, each day.
9. Eat slowly, and chew the food well.
10. Evacuate thoroughly, regularly, and frequently.
11. Stand, sit, and walk erect.
12. Do not allow poisons and infections to enter the body.
13. Keep the teeth, gums, and tongue clean.
14. Work, play, rest, and sleep in moderation.
15. Keep serene.

<sup>1</sup> FISHER, IRVING, AND FISK, DR. EUGENE LYMAN — *How to Live*; Funk and Wagnalls Company. Printed by courteous permission of the publishers.

## REVIEW, TEST, AND PROBLEM EXERCISES.

1. Read Carlyle's famous estimate of the importance of health. He uses very forceful English to show that life without health is seriously handicapped. He was a life-long dyspeptic and probably a hypochondriac, but he accomplished much in spite of his bodily weakness, because of his indomitable spirit; he lived to the ripe old age of eighty-five.

2. Why is abounding health of particular importance to the teacher? When does a person possess health? What is disease? Distinguish between germ and habit diseases.

3. What do you understand by surplus nervous energy? Write five sensible rules which you believe would, if followed, secure surplus nervous energy, providing there is no organic trouble.

4. Comment on the statement that, "Character, influence, happiness, all depend, in the long run, on a large stock of vitality."

5. If you are not in good health, make a thorough canvass of all your habits of eating, sleeping, drinking, exercising, and of your mind to find out, if possible, whether any such habit may be the cause of your trouble. Modern diagnosis and remedial measures work wonders for many, many cases.

6. Write out a series of menus for a week, including breakfast, luncheon, and supper — 21 meals. See that there is variety and that the meals are properly balanced — proteins, carbohydrates, and fats. Let us assume that the teacher takes her lunch box to school. Don't forget mineral salts, roughage, and vitamines.

7. Do you like celery, spinach, greens, ripe olives, olive oil in your salad dressing, most fruits, and vegetables? If not, why not? Is it merely prejudice and bad self-education? Will it not pay large dividends to cultivate a liking for practically all vegetables?

8. Explain this sentence: "Mental hygiene is largely a question of controlling the attention." Suppose you have the pernicious habit of worrying, how can you quit it? How about the "expulsive power of a new affection" in this instance?

9. "The teacher must eliminate that fatal feeling of hurry." Why must she, and how is it fatal? Is that dreadful hurried feeling a form of worry?

10. Girls may list a complete wardrobe outfit for a woman rural teacher for a twelve-month period, and compute the total bill. Try to strike a happy medium as to styles, quantity, quality, and prices.

→ 11. Make out a good sensible program for Saturday and Sunday, one which will involve change of work, adequate rest, mental and spiritual refreshment, relaxation, recreation, and proper amusement.

→ 12. Name several good books and magazines which would be suitable for Sunday reading, not including any professional literature. If a teacher is to have the proper mental background she must get outside of a narrow, restricted field of reading. Her reading will have much to do with her range of interests, her happiness, and her success in teaching. Should a teacher read a daily paper? Good fiction? Biography? Name five good books of fiction and five biographies.

## CHAPTER IV

### THE RURAL TEACHER'S SOCIAL AND BUSINESS CONTACTS

ANY teacher soon finds that among her qualifications for the teaching position there are social and business abilities and skills which contribute to her success and determine the net result of her work, as much as her knowledge of the technique of instruction. A rural teacher has social and business relations with many persons, and her personality manifests itself in no way more strikingly and effectively than in her standards, attitudes, and habits in such contacts. Sometime, more intelligently and more completely than now, the training of a rural teacher will take into account the entire life, experience, and associations of the one who essays, not only to teach, but to assume community leadership.

**Try to be a good mixer.** A teacher must necessarily come into contact with the people of her district in one way or another. Her human relationships constitute a large part of her work and of her problems. Teachers differ markedly, however, in their mixing qualities, as do other people. Some are very human and social in their natures, while others are inclined to be diffident, retiring, even aloof, perhaps, and rather silent. If a rural teacher meets people easily and good naturedly, if she always has time to talk in pleasant ways about all sorts of things and with all sorts of folks, she possesses a great asset and her influence is more extended and helpful. Moreover, this ability to be democratic, to get onto the level of the people of the neighborhood, will be of direct assistance

to her in her school work. For example, if a rural teacher wins over the mothers to her support and to her plans and policies for the school, it will make her work go much more easily. Invite the mothers to your school for a mothers' meeting, and when they come be the agreeable hostess. Keep on good terms with everybody, if possible, by taking the initiative in the matter of friendliness. The writer has noted repeatedly that *social* intelligence seems to count for more in the success of a rural teacher than *general* intelligence. High intelligence is apparently not so important as address, tact, sympathy, and power in leadership. Here is a field for investigation.

**Avoid factional entanglements.** It will never do for the teacher, who belongs to all the people of the district and who is the servant of all, to become too intimately associated with any select group or coterie of the community. In all her social relations the teacher will find it wise to take a large view of her relations to others, no matter to what church she belongs, or whether she is the member of any social organization or not. She must not permit herself ever to hold aristocratic, seclusive, or exclusive views in this important matter of social contacts. Children who go to her school come from all sorts of homes where different religious beliefs prevail, and where the fathers and mothers belong to a variety of social organizations. But the school is a democratic institution established to give education to all the children of all the people. More than one teacher has failed because of her narrowness and bigotry in religious views, or because of political and social affiliations. A teacher must be big enough to take in all, to see good in all, to be willing to serve all.

**A teacher's amusements.** Every teacher must deliberately plan to have regular time for recreation, amusement,

and social diversion if she is to be an efficient worker. All work and no play make Jack a dull boy and Jill a dull girl. The teacher will find herself growing stale and stupid unless she relaxes, unless she laughs, unless she sings, unless she plays in many ways with both young and old. How can a teacher find suitable amusements while teaching a rural school? For one thing, visiting the people of the district will, for those who are socially constituted, be a never-ending means of social diversion, recreation, and amusement. For the socially minded teacher meeting and talking with people will have a wholesome, tonic effect upon her nervous system and upon her general mental and physical health. Aside from such visiting, the author believes that a rural teacher should, along with other recreational activities, go to see a first-class movie, when occasion offers, if it is possible to find such pictures as *Lincoln*, *Humoresque*, *The Four Horsemen of the Apocalypse*, and *The Covered Wagon*. She will, however, show good judgment if she omits entirely the cheap, vulgar shows, of which there are so many in our day.

A rural teacher owes it to herself, also, to hear good music of all kinds as often as possible. This will develop her mind and heart as almost nothing else can. If the rural teacher can buy a season ticket to a good entertainment course, comprising a lecture or two, two or three high-grade musical numbers, a first-class impersonator, and other numbers, such an investment in wholesome entertainment will be well worth the price of the ticket. The rural teacher should, if possible, belong to some good woman's club and take part regularly on its programs. It will be of distinct value to her, also, to be a member of one of the fraternal organizations for women, of which there are now several. A rural teacher should hear good speakers, both men and women, frequently — those who speak on a variety of topics. A well-

conducted dance is a proper form of amusement, although some of my readers will not agree with me. There must be right conditions, the right people, the right forms of dancing, the right place, the right hours, else the dancing will do harm, of course, instead of good. A teacher should get out-of-doors as much as possible — usually at least two hours each day. If, in addition to the above, this rural teacher is also a good silent reader and a lover of good reading matter, she will have available at all times a never-ending source of entertainment, culture, recreation, and amusement.

**Don't do it.** This book is written largely for young women — let us say young women from eighteen to twenty-five years of age — and the author wants to say to this girl with emphasis: *You cannot afford to do anything which will bring you under any suspicion or put you in a compromising position in the community.* At the present time young people of both sexes are doing things in their social relations which, to say the best, are lax ; morally they border on the line of dangerous laxness. Now the rural teacher who permits herself to associate with young men of questionable morals is worse than foolish ; she may be courting that which is worse than death itself. The modern extensive use of the automobile, especially for "joy-riding," is closely related to this problem ; such use of the car has come to be a positive menace to the moral integrity of society. A rural teacher *must* keep herself morally clean and above suspicion and reproach, or the board should take immediate steps to discharge her. No rural teacher has a moral right to go to dances or to other late-hour social functions on school nights, as a general practice. When she signs her contract she agrees to sell her best energies and abilities to the district for whatever salary she receives. She owes it to the district to have surplus nervous energy with which to carry on her work. In a general way,

if a young woman engages in any form of amusement which weakens, degrades, or causes any sort of regret, she will some day be more than sorry. She should realize that she will surely pay the penalty, also, sooner or later.

**The teacher and her board.** You should know your board and endeavor to keep on good terms with them. Consult with them as occasion demands and secure their full and cordial coöperation in carrying on the work of your school. Don't decide matters which the board have the legal or moral right to decide. A rural teacher should not be willing to let the members of her board be mere figureheads who do nothing except to see that she gets her monthly pay check. It is not too much to say that it would be very helpful, indeed, if the teacher could meet all the members of her board together every month or two. Why not arrange to have them meet at the schoolhouse every sixth or eighth Monday evening from four to five o'clock, to go over the conditions and needs of the school? The rural teacher should know what she needs and should study how to present her requirements definitely and effectively to her board members. When she asks for books and supplies of any sort she should be able to state exactly what she wants, how much it will cost, and where to purchase it. She should know what quality of erasers and crayon she desires and just what and how many supplementary readers her school should have. No matter whether the board is business-like or not, the teacher should be. When the board meets, the teacher should have on paper all the facts and points which she desires to present. Let the board know that you expect to get what you ask for promptly. Be sure you are right in asking for things, and that you discriminate necessities from luxuries. Sufficient blackboard space is a necessity, but a teacher can get along without a Victrola.

**The teacher in her boarding place.** A rural teacher certainly needs a good boarding place where she can have a comfortable, quiet room and plenty of wholesome, nourishing, appetizing food. If there is any such place in the district the teacher ought to be given first consideration notwithstanding the merely personal desires of those selfish persons who may say that it is no business of theirs whether the teacher is taken care of or not. It is the business of the entire district to see that the teacher is well located. If this boarding place can have a genuine homelike atmosphere, where the people have proper ideals of life and where there are books, papers, and magazines, that is greatly to be desired. Usually it is well for the teacher not to go to a home to live where there are children, especially school children. When one or more children from such a home go to school, unpleasant and embarrassing situations may arise because of happenings in home or school, or because of the teacher's personal relations to the pupils. It is likewise undoubtedly best for the teacher to live in a home where the people have a good social standing in the community. At least there must be nothing questionable in this regard. A wise young teacher will be particular as to what she says and does in her boarding place. She cannot safely do any gossiping herself and should listen to just as little of such talk as may be. It is to be hoped that our teacher will show a helpful attitude. It will not harm her to wipe the dishes occasionally, for example, or to offer to do some other light chore. She should make herself as agreeable as possible and as little of a nuisance as may be. A suitable boarding place may have much to do with a teacher's happiness, efficiency, and influence.

**The teacher and her county superintendent.** The county superintendent is the educational chief and is expected to be the educational leader of the county. By legal right he is

given power and authority to determine many questions. It is the duty of every teacher in the county to coöperate with her county superintendent in every possible way. Unless a teacher can loyally support her superintendent she owes it to him, to the schools, and to herself, to resign. While she is teaching in the county she has no option ; there must be loyal coöperation whether she likes the superintendent personally or not. The rural teacher will be asked to make out reports of various kinds, to keep a plan book, to attend certain meetings, and to do other things. In all such matters there is only one sensible course of action and that is active and cheerful coöperation. If every rural teacher in the county would promptly answer all inquiries, fill out blanks carefully, and send them in on time without any, or at the most one, request from the county superintendent, the work of that often over-worked individual would be much lightened. It will pay any rural teacher to keep in touch with her county superintendent, and to ask for help in solving her school and teaching problems. Usually the county superintendent can give valuable assistance in cases of failure to comply with the compulsory school-attendance law, or of failure on the part of the board to do their plain duty when repeatedly asked by the teacher. Be friendly with your superintendent, ask him to attend evening meetings, tell him about conditions in your school, and secure his active support and coöperation. Don't expect too much of him ; but don't try to get along without him.

**Business and financial considerations.** *Your business reputation.* Every rural teacher must necessarily have business relationships with the county superintendent, the supervising teachers, if any, the faculty of the county normal, if there is one, the members of her board, the publishers of her school journal, the company furnishing school supplies, her

landlady, the stores where she buys her clothing, her banker. How does she do business? Does she pay all her bills promptly and meet all her obligations in a wholly honorable, trustworthy, and businesslike fashion? Does she answer letters promptly and fully, as well as courteously? Does she return borrowed material promptly without being asked to do so? Does she fill out and send in reports on time without the need of a second request? Does she keep her register well all of the time? A rural teacher needs to have on hand a good supply of paper and envelopes, post cards, black ink of good quality, pens, penholders, and blotters. If she is not supplied with these necessary articles it simply indicates carelessness and lack of business principles and habits. It is really as easy to answer a business letter within twenty-four hours, assuming that the answer is available, as it is later, and usually much easier. Habits of procrastination are probably partly hereditary — a family shortcoming — and partly a result of bad training or bringing-up. In any case they are usually more or less disastrous in their social consequences. It will add to a teacher's prestige and influence if she has a good business reputation. Good housekeeping and good business habits may turn out in the end to be as important as good teaching.

*Business and the school.* There are many favorable opportunities in connection with all the work of the school to form good business habits. A good business man keeps up the loose ends. The material with which he deals is in order, and he knows where to find it. He labels shelves, boxes, and goods, so that time will not be wasted in the transaction of business. A rural teacher may find many useful lessons or suggestions in any good store, bank, or factory. One of the best lessons which a teacher can inculcate is the lesson of promptness, accuracy, and dispatch in the transaction of

the business of the school. In the rural school good teachers to-day make use of the committee system. When a pupil is placed on a committee it is both his and the teacher's duty to see that the work is done right. For example, suppose a pupil has been appointed to take the temperature of the room each hour, to record it, and to regulate the heating and ventilating system. Here is a definite chance for very direct and helpful training in the right way to do such a task. The ruled cardboard for the temperature should be neatly made out, all the columns properly headed, and the figures neatly entered. Pupils should learn, too, that successful business men do not forget. A school should be conducted according to business principles. It can be done and is very much worth while, because of the effect upon the developing minds and characters of the boys and girls.

*Do business with a bank.* When you get your first month's salary go to a safe bank and deposit your money. If you are a wise and prudent young woman, you will always place a certain percentage of your salary in the savings department. The rest of it you can use to open a checking account; then you can pay nearly all of your bills by means of checks. In that way you will have a receipt for your payment which may be the means of avoiding embarrassing difficulties. When you deposit your money in the savings department you get a certificate of deposit or perhaps a pass book in which the entry will be made. For your checking account the cashier will give you a pass book in which your deposit will be entered. He will also give you a check book, and you will be required to leave your signature so the bank will know it in the future. Always sign your name in the same way. Learn from the cashier just how to fill out a check, for there are a right way and several wrong ways. After you begin to pay your bills by means of checks you could not be induced to go

back to the old way. In this way you can now pay your landlady by check at the end of each week or month; you can pay for your teacher's magazine with a check through the mail; you can pay all your bills for clothing, doctor, and dentist, in this way, and it will be much safer and in every way more satisfactory. Learn how to do your banking business *right* from the start and avoid trouble and embarrassment for yourself and for those with whom you do business.

*Making out a budget.* Every rural teacher earns money and spends money. Presumably some of them save some money; all may do so. Many, however, do not save at all, and possibly a few save too much. Some are spendthrifts and some are "close," as we say. It goes without saying that everybody who earns should save something, and the only kind of saving which counts is systematic saving. In order to save a teacher must definitely plan to save. The reason so many do not save is because they do not adopt a definite system of saving. What is needed is wise saving and wise spending, rational economy, real thrift, not miserliness or stinginess. Send to the Treasury Department, Washington, D. C., for the very helpful little booklet, entitled *How Other People Get Ahead*. Here are some striking excerpts: "Thrift means good management. Thrift means spending less than you earn; saving systematically. Put your money to work. You work for money; make it work for you. To get ahead you must have a simple and definite plan. Hit or miss methods won't do; in the accumulation of money they are positively fatal. Do not read further until you see the truth of this statement. Learn to distinguish between luxuries and necessities, and don't be neutral. Keep track of all disbursements. Find out if you are wasting money, then plug the leak. Andrew Carnegie expressed it completely when he said: 'The best way to accumulate money is to

resolutely bank a portion of your income, no matter how small the amount.”

The way to get on to a sound financial basis is to make out a budget for the entire year and then adhere closely to the budget. In order to make clear what is meant by the budget plan, a typical budget is presented herewith. If a young person starts right in money matters early in life it will mean very much to him or her in all the years to come. If he starts wrong, with bad ideas of spending and saving, there may be life-long failure, or a continued hand-to-mouth existence. Form the budget habit, and thus store up provident years for yourself and for those dependent upon you. The author will be glad of criticisms of such a budget as the following:

AN ESTIMATED, SUGGESTIVE BUDGET FOR THE RURAL TEACHER  
Salary — 9 months at \$100 . . . . . \$900.00

*Savings and Expenditures*

1. Savings bank . . . . .	\$175.00
2. Board and room (36 weeks) . . . . .	250.00
3. Clothing . . . . .	200.00
4. Church, charity, gifts . . . . .	50.00
5. Professional advancement, books, magazines, meetings, etc. . . . .	50.00
6. Life insurance . . . . .	25.00
7. Sickness and accident insurance . . . . .	25.00
8. Carfare and other transportation . . . . .	25.00
9. Doctor and dentist . . . . .	30.00
10. Oculist and optician . . . . .	15.00
11. Amusement and recreation . . . . .	30.00
12. Miscellaneous expenses . . . . .	25.00
Total . . . . .	\$900.00

NOTE: The average salary for one-teacher schools for all the states for 1924 was \$735. The average school year for all these schools for 1924 was approximately seven and one-half months, of twenty days each.

Note that this budget does not provide for the other three months of the year, including possible attendance at a summer school. Very many rural teachers either engage in some earning occupation during at least a part of the summer vacation, or else provide for their necessary expenses in some other way.

*Applying for a school.* A young teacher does not always show the best judgment when applying for a school; some suggestions pertaining to this important business are offered here for the guidance of the teacher:

a. Do not apply for the school in your home district, as a rule. This applies particularly to beginning teachers. It will usually be unwise to go into a school where you are well known because some children might take advantage of that situation, making the problem of control and management more difficult.

b. Find out how large and how difficult the school is likely to be for which you are applying. Do not attempt a too large or a too difficult school the first year. Inexperienced teachers often overestimate their ability to handle a school because they do not realize how much there is to do.

c. Many school boards do not hire their teachers until after the annual school meeting, which may occur as late as July; but there is really no excuse for this. An increasing number of boards are now engaging their teachers in April, May, and June; all should do so, in the writer's opinion. A teacher should go after a position with the intention of getting it. She must not sit down and wait for slow, unbusinesslike school officers to move.

d. Some teachers do not object to going some distance from home or from a railroad; often there are good schools and good salaries in such localities. Not every teacher can find a school exactly as conveniently located as she would like.

e. Never undermine some one else in order to secure a

school. To do so is unethical, unprofessional, and never justifiable.

*f.* When writing to a school clerk, enclose a self-addressed, stamped envelope. Be businesslike and to the point in your letters. Be especially careful about the form of the letter, the spelling, the capitals, the punctuation, the legibility of the writing, and the general appearance and neatness of the letter.

*g.* If you do not know that there is to be a vacancy in the school for which you apply, ask to be considered an applicant if a change of teachers is contemplated by the board. You can often find out whether there is to be a vacancy by writing a preliminary letter to the teacher or to the clerk.

*h.* In your letter state briefly the schools you have attended and those from which you have graduated. Refer to one or two well-known people who can give information about you. The beginning teacher had better say nothing about salary in her first letter.

*i.* Find out how many months of school the district has in a year. Learn who is to build the fire, to furnish seat-work materials, to clean the school building, and to do other janitor work.

*j.* A personal interview with the members of the school board is desirable, as well as an inspection of the building, equipment, books, and register. Remember there are two sides to this business of applying for a school. You are in the market to sell your personal services. It is the duty of the district to furnish you a suitable place with adequate equipment in order to carry on your work.

*k.* Make special inquiry about your boarding place. You should get settled once for all in September so that you will not need to change later. Get the school board to assist you, if necessary, in finding a good boarding place. You will need to use good judgment in this matter.

*l.* In your interview with the school board be as business-like and as pleasing in your personal bearing as possible. Find out all you can about the school and the district. In the matter of salary don't sell out too cheaply and don't play the "hold-up" game. If you do the first you are not true to yourself, and if you are guilty of the second you are dishonorable.

"*Is it so nominated in the bond?*" Shylock wanted to know what was specified in the contract; every rural teacher should know what is in her contract so that when she signs her name to the document it will be with the full intention of carrying out her part of the agreement, both in letter and spirit. Most boards are willing to give the teacher a written contract, though with practically all boards it is probably equally true that their word is as good as their bond. If there is only an oral agreement, in ninety-nine cases out of a hundred, no doubt, the teacher will have no trouble. Nevertheless, it is just plain business practice for the teacher to ask for a written contract in which will be set forth all the terms of the mutual agreement. An adequate contract will comprise such items at least as the following: When the term is to begin and end; times for vacations; salary of teacher and when to be paid; the promise of the board to furnish a suitable building with adequate equipment; stipulations as to janitor service; what shall be done about holding school on Saturdays (in one state it is legally permissible to carry on the school, not to exceed four Saturdays a year); definite understanding as to buying seat-work material; a copy of the teacher's certificate with standings; and other needful items. The number of the district should be given and the name of the town and county. Blank contracts can easily be secured. In some states the form of the contract is fixed by law. Both teacher and board should have a copy of the

contract. The contract is signed by the teacher and should be signed by *all* the members of the board. It would hardly be wise for a teacher to begin work in a school where one member of the board refused to sign her contract. She cannot afford to start with such a handicap, as a rule. When a teacher signs a contract she is legally and morally bound to keep it. If for some prime reason she might wish to sever her connection with the school, she should always take the matter up with the board and get their consent to release. No honorable young woman will ever "jump" her contract, and no square-dealing school board will ever dismiss a teacher without good and adequate reasons. The contract should contain plain provisions concerning the matter of holidays and settle the problem of closing school on account of sickness. This is sometimes a rather puzzling question so far as it relates to the teacher's making up time. There should be a complete understanding about all such matters.

*The problem of insurance.* The author of this book believes that every young teacher who is able to do so should have his or her life insured, and should also carry a sickness and accident policy. There are now many good safe companies writing a variety of policies. As a mere saving proposition life insurance is a first-class investment. If a young woman eighteen to twenty years of age will buy a 20-payment life policy for \$1000, it will not cost her much more than \$25.00 a year; at the end of twenty years, she will be given several options in disposing of her interests. If the teacher will write to The Teachers' Casualty Underwriters of Lincoln, Nebraska, she will learn some interesting and helpful facts concerning sickness and accident insurance. If a teacher is ill with the "flu" for a couple of weeks, it will be most convenient to receive fifty to one hundred dollars with which to pay her doctor and nurse. No thinking person who canvasses all the

facts can fail to see that life insurance and sickness and accident insurance are not only right and proper, but the best and only procedure for the average teacher, whether she has people dependent upon her or not.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Tell specifically what a rural teacher can do to improve her social qualities. State some definite lines of activity.
2. Make out a sensible day's program for a rural teacher from the time she rises until she goes to bed.
3. Do you think a rural teacher should visit every home in the district? Argue that question *pro* and *con*.
4. List several items of business which you would bring up at a board meeting, and tell how you would present them to the board.
5. Make out an order, including quantity, quality, price, etc., for crayons, erasers, rulers, a map of Europe, a drinking fountain, two curtains, and some educational seat-work material for the first grade.
6. Write out a list of five duties and obligations which the county superintendent has a right to expect you to discharge faithfully, loyally, and promptly.
7. Address to James Brown, clerk, a model application for a school, being particular about the materials and facts you use, the form of the letter, and the English.
8. Find an up-to-date school register somewhere which is approved by state and county superintendents, and then learn how to fill in all parts.
9. Tell how to do business with a bank, giving all the details of starting your account, making deposits, and drawing checks. Write out a check in proper form to pay for your first week's board. How is a check indorsed?
10. Make out a budget for an average rural teacher, using the one in the book as a guide.
11. Get the form for a teacher's contract and fill it out. Be sure this blank form contains all necessary terms for the agreement. If it does not, insert the items of agreement which are omitted.
12. Why should a young woman get her life insured? What kind of a policy would be a good one for her? About how much would you get at the end of 20 years, if, insured for \$1000, you cashed in then on a twenty-payment life?

## CHAPTER V

### MANAGEMENT — ORDER — DISCIPLINE

#### I. MANAGEMENT

**The field of management.** The school is a business enterprise involving human relationships. In order to carry on the work of the school successfully it is necessary that plans be made in detail and that teacher and pupils work together with a common purpose. School management in its widest sense comprises several elements of school procedure. It involves, first of all, a consideration of the necessary conditions — physical and social — which promote the true education or development of the child. Under the head of physical conditions, such topics as heating and ventilating, lighting, the blackboards, the drinking water, and sweeping and cleaning are of basic importance. The mere enumeration of certain necessary conditions indicates the need for management. Beside favorable conditions there is the question of the mechanics of the school — the program, the movement of classes, and similar problems. A successful teacher takes note of all such matters, gives thought to them, and makes definite plans. Here we also find the problem of laying out the work and getting it done, the latter involving the comprehensive problem of interests, motivation, dynamic teaching. Finally, the general spirit or emotional atmosphere of any school is of well-recognized importance. Proper management seeks to produce a wholesome tone involving an atmosphere of coöperative activity and of good will, which results in right ideals, habits, and attitudes.

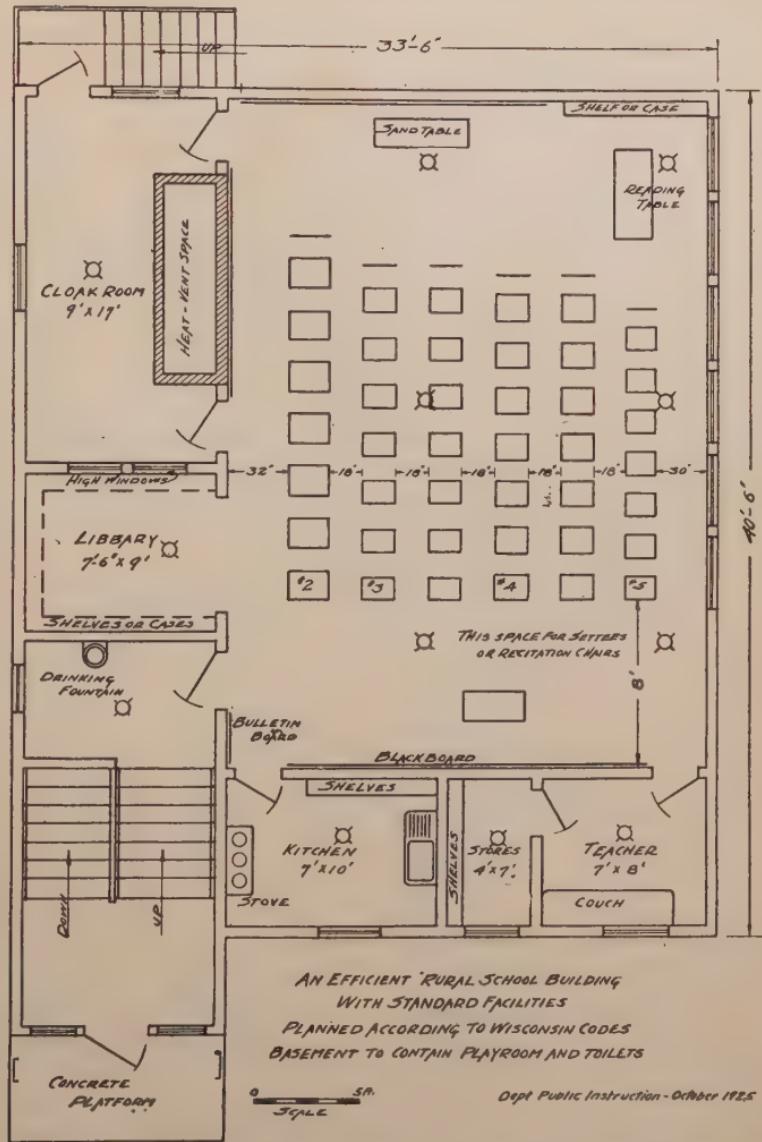
**Acquiring the art.** The writer has known teachers, both in grades and high school, who have looked upon a study of school management with more or less of indifference and disdain. Such is not the attitude of any thoughtful teacher. School management is necessary and of vital importance. It involves many details which require study, because it can be learned in no other way. It is true that many teachers learn something of this art by the trial-and-error method, which is more or less wasteful of time and effort. It is, moreover, entirely unfair to the pupils on whom the unskillful teacher does her practicing. What should we think of a physician who learned his science and art of medicine by merely practicing on his unprotected patients! As a matter of fact, sensible people do not employ such a quack. But what about quack teachers! School patrons, as well as educators, are gradually coming to see that no rural teacher should begin her work without a course of professional training, which always involves management as well as method.

**Need for standards.** To-day, more than ever before, standards of progress and achievement are being established in school work as in other lines of human endeavor. We now have scales in spelling and writing, for example, which enable us to judge quite accurately of the work of an individual or of a class. We are also using score cards, both for the purpose of recording judgments and as a means of stimulating to better effort. In the management of a rural school, certain standards of what is right are now well recognized by experts in this field of education. As to physical conditions we have arrived at rather definite conclusions concerning the building itself, heating and ventilation, and blackboards. The daily program for the average rural school is now almost beyond the stage of experiment, although there is diversity of practice. In other chapters of this book standards are set up for

the guidance of the rural teacher. Rural school supervisors know very well that the standards used in a modern city-school grade in the matter of class movements, class control, and class procedure will not give good results in an average country school. What we need is a special set of standards, both in procedures and management for the one-room rural school.

**Physical conditions.** A good rural teacher is particular to have the physical conditions as nearly right as possible. This means that she will keep her room well ventilated at all times. She will air it out thoroughly at all intermissions, and she will be careful to operate the ventilating system intelligently. She will see that there is plenty of light, and that no child faces a strong light. Seats will be adjusted to individual pupils, so far as possible. Pure, clean, fresh drinking water will be provided. The building will be kept clean and neat, and the sweeping and dusting will be done thoroughly every day. The health of the child will be a main consideration with an intelligent rural teacher. Proper physical conditions will aid the teacher in matters of management and control much more than she realizes at the start.

**Seating pupils.** It is best to have adjustable single desks and to keep them adjusted to the needs of the different pupils. So far as management is concerned pupils should be seated so that temptations to disorder will be reduced to the minimum. It looks well to have pupils arranged by classes or according to size, but sometimes the teacher must depart from this plan in order to promote the ends of management. However, no child should sit in a seat where his feet do not touch the floor, and no child should sit all day in a stooping posture. The nearer edge of the desk should be about two inches back of the front edge of the seat. If the nonadjustable seats and desks are used, then only those of the same size should be used



Courtesy State Department of Public Instruction, Madison, Wisconsin.

### Floor plan of modern rural school

Note especially the kitchen, teacher's room, library, and storeroom, all highly desirable.

in the same row. In an average rural school four or five different sizes will be needed.

**Problem of rules.** No doubt the teacher will need rules for her own guidance ; she may find it very profitable to formulate a set of rules governing the system and machinery of her school. Such rules are entirely different from those which have to do with the conduct of pupils. If a teacher makes a rule that every pupil who whispers will be required to remain after school, she is tying her own hands. It is usually unsafe to make rules concerning conduct, especially with penalties attached. The best way to handle such matters is by individual treatment of individual cases. Do not advertise the fact that you will punish thus and so, but mete out the punishment as the occasion demands. Rules pertaining to the questions of examinations, marks, or promotions are very different matters, fraught with less danger. A teacher must never make a rule unless she is sure that she can enforce it. A rule must be fair and reasonable, and it *must have the public sentiment of the school back of it.* Otherwise, the teacher will be making a bid for a contest between herself and her pupils, which no wise teacher ever does.

## II. ORDER

**What is good order?** Teachers have different ideas of what constitutes good order. Some apply the pin-drop test and others are willing to give the children a great deal of freedom. Some try to eliminate all whispering and others believe that it is proper for pupils to communicate about necessary school business or work. If a rural teacher is able to make use of profitable problem-project procedure (most teachers cannot) and thus suitably motivate the work, she will have but little trouble with the question of order. There is something radically wrong with the teacher's spirit,

aims, and plans, if she needs to give much attention to order. In an orderly school the children are busy of their own volition. They are not doing things simply to please the teacher, but they are working out problems which are of real interest to them personally. A school is orderly in the best way when the idea of order is a secondary one, both with the teacher and with the pupils. Educative seat work and plenty of it should help to solve this problem with the smaller children. Every child who is not profitably busy in some way would be better off out of doors, when the weather is favorable.

**Disorderly teachers.** There are many varieties of disorderly teachers. Some teachers are constantly throwing monkey wrenches into the gearing instead of pouring oil into the bearings. A noisy, loud-talking teacher is always a disorderly one. By her coarse, heavy tones she jars the physical atmosphere, and the spiritual and emotional, as well. Her loud tones prove to be contagious; before long there is a contest going on to see who can talk the loudest, the teacher or the children. A teacher is disorderly, too, if she has an irascible temper. Such a teacher is touchy and easily flies off the handle. She is a bad example for the pupils and she does much to produce a bad spirit or tone. Some teachers are disorderly in their personal bearing. They do not dress neatly and they have, in general, a slovenly appearance. In some way this lack of physical trimness and of good bearing produces a bad mental and moral effect. Sometimes the teacher is a disorderly element because of the extreme styles of hair, dress, and the like, which she affects. If a teacher keeps her desk and the library shelves in a disorderly condition the effect will soon be manifest upon the entire school. Good housekeeping is important from the standpoint of order; the teacher's housekeeping abilities constitute

a large part of her contribution to the general school situation.

**Disorderly pupils.** Of course there are almost always some disorderly pupils, particularly at the beginning of the year. But it is entirely possible to change a disorderly child into an orderly one by proper treatment and training. Many pupils are disorderly because they have never been taught correct ideals and standards of order. It is rare, indeed, to find a pupil who persists in disorderly practices simply out of a spirit of meanness. A good deal of disorder comes from the fact that pupils are unable to study effectively; there is lack of proper assignments. Many teachers could solve their problems of disorder if they would make more extensive use of the study recitation and of supervised study. If a pupil persists in disorderly conduct, disturbing others in so doing, he may need to be given drastic treatment. Sometimes such pupils should have certain privileges taken from them. Again, a private interview, in which all the elements of the situation are discussed, will bring about the desired reform. In no case should a teacher permit the disorderly conduct to continue indefinitely. A pupil who persistently whispers, who does not get his lessons, who disturbs others, cannot and must not be tolerated. In such cases the teacher should make a diagnosis of her own weaknesses as well as of those of the pupil. Many times the difficulty is one that pertains to teaching. If a child is interested in his work, he will rarely be troublesome. Poor teaching is a bid for disorder.

**Movements of pupils.** Pupils should be trained to move in orderly lines. Such training is a part of the general educational procedure. When pupils go to class they should pass in order, to the teacher's "stand — pass — be seated," or other appropriate signals. Some teachers use the vocal signals: *one, two, three.* Whatever plan is used there should

be a general agreement and understanding, and all should obey promptly. In no case should a teacher use a jangling call bell. At recess times pupils should pass out in good order. Sometimes a boy or girl may play a march on the organ — an excellent plan. After recess is over pupils may form in line and march to their seats in orderly fashion. If a teacher will persist in some carefully considered system of pupil movement, she will find that the general effect upon the spirit and control of the entire school will be wholesome and beneficial. There are supervisors, superintendents, and principals who are not in accord with these suggestions; but the author is convinced that for the average rural teacher such a plan is both proper and feasible. It is good character training and works no hardship to anyone.

**Teacher leadership.** The teacher is understood to be the leader. In order to act the part of leader, the teacher must think, plan, execute. A leader needs poise and self-control. A leader must be sympathetic, but also firm. If a teacher can be fair, frank, and firm with all her pupils, she will do much to promote her leadership and influence. To be a leader a teacher must make plans carefully and carry them out through the coöperation of the pupils. True leadership is far removed from anything which savors of the mere boss. A true leader does not dominate. The old-time school master was not a leader. He was an autocrat, a czar. He did not secure and he apparently did not seek coöperation. His word was law and the pupils obeyed through a sense of fear. Such methods are not the methods of true leadership. When a teacher is the genuine leader in her school and community, she secures adherence to her program because it is a correct program, on the whole, and because she convinces her patrons and pupils of the justness of her cause. Teacher leadership in rural communities is a very much needed ele-

ment in solving the rural school problem. What is needed most of all is the leadership of ideas, of ideals, and of Christian character.

**Habit and routine.** Very much of a teacher's work has to do with the formation of habits. If a teacher has an orderly school it will be because she and her pupils have orderly habits. Spasmodic activity, doing something to-day and forgetting to do it to-morrow, will never result in good order. The orderly teacher carefully plans out her activities and then makes a serious effort each day to do things exactly as planned. Many a teacher has a noisy, whispering school simply because she lacks the habit of firmness herself. To establish habits in school children requires persistency and self-control on the teacher's part. Uniformity and regularity of action constitute the only means of habituation. The mechanical procedures of the school should be routinized as soon as possible, in order to save time and energy.

### III. DISCIPLINE

**Modern coöperation.** So much depends in our modern American social organism upon the active, coöoperative participation of every citizen, that the school should unquestionably prepare boys and girls for this type of society. Pupils must be trained to be active participants rather than passive recipients. Such training can be secured only by shaping the program of the school in such a way that pupils take the initiative as much as possible. The socialized recitation is a move in the direction of such coöperative training, although it is overworked by some teachers. The school society is also an effective organization in which to develop the virtue of participating citizenship. The playground, with its supervised play, affords many opportunities for teaching boys and girls to do effective team work. The school should be a

democratic, coöperating institution which prepares boys and girls for participating social citizenship.

**The old schoolmaster.** The old schoolmaster has, for the most part, passed away and given place to the young schoolmistress. The man teacher in the rural school a generation and more ago had some excellent qualifications for his position, but in other ways he was deficient. Usually he *made* the children mind, and, although the obedience he secured was of the forced kind and obtained largely through fear, he still rendered a useful service in this way. He was also, many times at least, a master of the more difficult branches, such as arithmetic and grammar. What he knew he usually knew thoroughly; he often transmitted his passion for accuracy and mastery to some of the older pupils. He knew nothing at all about primary technique. He taught reading by the *a-b-c* method. The old-time schoolmaster often had a good mind, but he knew very little about the art of teaching for the very obvious reason that he made no study of his art as such. He believed that anyone could teach if he only possessed the requisite knowledge. In instruction he taught book knowledge exclusively; in discipline he was monarch of all he surveyed and governed his school as people are governed in any monarchy. He apparently did not understand the fundamental principles of democratic government.

**The new schoolmistress.** The new rural teacher is usually a young girl from eighteen to twenty years of age. She has the great advantage of being young, along with the disadvantages of immaturity. Her ways of governing her school will largely be determined by her own personality or temperament, and by the training which she has received in her own home and from her different teachers. As a rule she has a pleasant, cheerful disposition and is friendly in her

relations with the children and patrons. She is likely to appeal to the better nature of the child, and she secures results through natural incentives. She does not use coercion or fear nearly as much as her old-time male predecessor. This new schoolmistress is more of the type of Amy Kelly or Jean Mitchell. If the reader is not already acquainted with *The Evolution of Dodd or Jean Mitchell's School*, it is suggested that in these two books she will find many suggestions concerning this important business of management, order, and discipline.

**Why and when punish.** If a teacher is fortunate enough to possess the right personality she will not need to punish often. If a teacher finds it necessary to punish frequently and is taxing her mind to invent ways of punishment, she may be sure that she is on the wrong track. Such a teacher is animated by a wrong purpose entirely; she must right-about-face if she is to exert a salutary influence in building up the characters of her boys and girls. Of course punishment is sometimes necessary, and a teacher must not hesitate to punish a child for his own sake and for the good of the school. E. E. White states that, in general, punishment may be needed to prevent wrong doing, and, in particular, to reform the wrong doer, to deter others from wrong doing, and to condemn wrong doing. No good teacher ignores bad conduct. She will not tolerate lying, cheating, profane language on the playground, the marring of furniture or outbuildings, impertinent responses, or failure to do assigned tasks. So far as possible she will secure results through the use of natural incentives, but with some children persistence in wrong doing must be met with suitable and effective punishment.

**Forms of punishment.** The following discussion of forms of punishment was suggested to the author in part by Wil-

kinson's *Rural School Management*<sup>1</sup> and in part by Salisbury's *School Management*.<sup>2</sup> It will be profitable briefly to consider first certain forms of punishment which should not be used, some of them being very common with certain teachers.

*Threatening and nagging* are always wrong because always ineffective. The teacher who threatens and nags defeats her own purpose; she does not secure the results she expects. Moreover, this method of dealing with pupils ultimately produces disrespect, and, instead of securing good conduct, actually encourages misconduct.

*Sarcasm and ridicule* cause resentment on the part of all self-respecting boys and girls and are an indication of a sordid spirit. Any teacher who resorts to the use of insulting epithets, such as *blockhead* or *dunce*, needs to revise her thinking and to overhaul her motives and her conscience.

The infliction of *personal indignities* upon the child's body, so-called "appropriate" or "natural" punishments, such as washing out the mouth or tying a cloth over the child's mouth, all savor of the spirit of the barbarous ages. Any teacher who feels the need of such procedures should make up her mind that she is in the wrong business.

The principle of *saturation* was utilized by the old-time schoolroom czar, when the child was compelled to repeat his offense to the point of fatigue. If he was caught chewing gum, for example, he was made to stand before the school and chew to the point of exhaustion. The coarseness of thought and spirit shown here is revolting to every right-minded teacher, young or old.

It is one thing, legitimate and proper, to require pupils to make up work which they have neglected to prepare; but it

<sup>1</sup> WILKINSON, W. A. — *Rural School Management*; Silver, Burdett, and Company.

<sup>2</sup> SALISBURY, ALBERT — *School Management*; Row, Peterson, and Company.

is an entirely different thing to ask a pupil to memorize poetry, for example, because he spent his time whispering. Whenever regular school tasks are used as a means of punishment, the child gets a wrong sense of proportion and of educational values. Whenever a pupil fails to get his work done because of laziness, he should be required to do it, and he will see the justice of the requirement. No punishment should result in a wrong attitude on the pupil's part toward school work. The work of the school should be made attractive and not repulsive.

*Reproof and personal criticism.* There are several forms of suitable punishment, and reproof and personal criticism make one of the best. The teacher who has a good spirit and a genuine regard for the welfare of the child will frequently use kindly, personal, private reproof as a first resort. General, public reproof is more questionable, and is usually unwise and unnecessary. Children don't like to be "called down" before the entire school; such a course generally produces hardness of heart and justifiable resentment. If the teacher knows the facts of the case, a personal interview will often result in much good. Some of the best teachers find that reproof as a form of punishment serves practically all of their purposes.

*Suspension and expulsion* are sometimes necessary. Suspension is a temporary dismissal from school, say, for two or three days or a week. Expulsion means permanent banishment and is, therefore, a very serious matter. The teacher, in most states, has power to suspend unruly pupils, but expulsion is exclusively the prerogative of the board. Of course no child should be expelled from school unless all other measures have failed. Expulsion means permanent loss of school privileges. A child may be suspended for persistent disobedience, for continued immoral conduct, for refusal and failure to do the required work, or for continued

impertinence. Whenever a teacher suspends a pupil from school the board and the parents should be notified at once, and full and satisfactory reasons given for such action. When suspension fails and a child proves to be incorrigible, there is no way out except permanent dismissal. A child who is persistently disobedient to the extreme of insubordination, or who is guilty of flagrant and repeated immoral conduct, or who will not do the work of the school has no right in the school and is a menace to the rest of the pupils. It is the legal right and the duty of the board to remove such a pupil from school.

*Corporal punishment* is permitted by legal enactment in most states, and the courts have upheld the teacher repeatedly in the proper administration of such punishment. It should, however, be used only when other means fail ; but if a suitable instrument is used in the right way, it may, if occasion demands, be anything but a cruel form of punishment. If teachers would do as well by certain refractory culprits as Dodd Weaver's grandfather did by him, his pupils would rise up in the years to come to bless the teacher who did *not* spare the rod and spoil the child. A teacher must be careful never to whip a pupil in anger and never to leave marks of any kind on his body. Be sure you are right ; young or old, *be sure you are right*; be sure that you will have the coöperation of the parents and the approval of the board ; then go ahead and do it right. That is to say, make it effective or don't use corporal punishment at all. Most pupils should never be punished corporally, and the teacher should deliberate long and carefully as to the probable effect upon the child and upon the school. In administering corporal punishment the public sentiment of the school and of the community must be entirely on the teacher's side ; otherwise she may be playing a losing game.

Try other measures first. The best teachers never inflict bodily punishment of any sort. Don't forget that.

*Deprivation of privileges* is a natural punishment and effective if the privilege is real and if the child can be reached in this way. It is a genuine punishment to some children not to be allowed to perform certain monitorial duties, not to be allowed to play with the others, to be refused their part on a program, to be deprived of the teacher's confidence and trust. A skillful teacher can make profitable use of this form of punishment. If a pupil has been allowed to get interesting stories from the library after his lessons are prepared, and if he loves to read, it will be a genuine punishment if the teacher withdraws this privilege temporarily because he neglected his work in order to read stories. The punishment must whenever possible be adapted to the offender and to the nature of his offense, if it is to prove availing and reforming.

*Detention* at recess or after school may or may not be proper, according to the nature of the misdemeanor. If a pupil wastes his school time, uses profane language on the school ground, or mistreats his playmates, it may be proper temporarily to deprive him of the privilege of playing with the others. He must, however, be allowed to go out-of-doors by himself, as he needs the fresh air and the exercise as well as the others. No teacher has a moral or a legal right to deprive a child of his play time. Keeping the pupil after school is usually a great mistake; and if parents ask to have the child come home as soon as school closes, the teacher cannot legally keep him. In all these matters the teacher is not to consult her own convenience, but rather the welfare of the individual child. As a matter of fact keeping in at recess or after school is a form of punishment which should be used but rarely; it is usually the resort of weak teachers.

*Making restitution* is a natural and a legitimate form of punishment. If a pupil destroys or injures any school property or that of other pupils, he should make it good. Both parents and teacher should see to it that the restitution is a personal sacrifice, a result of the child's own effort and saving. If the parents pay the bill the child does not suffer, and there will be no change of ideals and hence of conduct.

**Need for obedience.** No school is successful unless the pupils cheerfully and promptly obey the directions and the wishes of the teacher. Willing obedience is the very corner stone of the school structure. So a teacher must secure true obedience or she is indeed a failure. In order to secure this result a teacher must always be careful that her requirements are reasonable and just. Most children have a sense of justice which is keener and more accurate than many teachers can understand or are willing to admit. If a teacher is thoughtful in what she asks of her pupils and is uniformly firm day after day, she will have but little trouble. This means that the teacher herself must obey the law; she must have a truly obedient spirit, herself. She must be able to think out a wise and suitable program of school work and she must exercise personal self-control. Poise and serenity of spirit on the teacher's part will aid much in securing obedient responses from the pupils.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make out a set of rules and regulations for your own personal use, by which you would like to systematize your rural school.
2. How are physical conditions related to school management? Note the bearing of heating and ventilating, lighting, and seating, upon the control of pupils.
3. Write five adjectives describing the kind of a spirit you would like in your school. Name five evidences of a bad school spirit. Indicate five causes in producing school spirit.

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4. Draw a diagram showing how you will seat twenty-four pupils in a rural school — of all the eight grades — so that each child will have a comfortable seat. Write in the names, ages, and grades of the pupils. You will have single desks of four different sizes and nonadjustable. Four pupils in the four upper grades are inclined to be somewhat disturbing.

5. Assume you have made a rule that any pupil who is tardy must stay in at recess. State the various kinds of trouble you may get into. How will you deal with tardiness? May it not be a question of reforming parents?

6. Write five reasons showing why whispering is an evil. Indicate five lines of procedure to prevent whispering. Why are some teachers never troubled in this way?

7. Suggest changes in the programs in Chapter VIII. To what extent should teacher and pupils adhere to a program?

8. What is the happy medium between the pin-drop test and the extreme-freedom idea? Consider the bearing of project teaching upon the problem of control in a rural school.

9. Indicate five ways in which a teacher may, herself, be a cause of disorder.

10. Name five attributes of the teacher who is a real leader in her school and in the community. Read Bagley and Keith's *An Introduction to Teaching*, The Macmillan Company, pp. 325-326, 358, and 362.

11. Distinguish between a democratic and an autocratic school régime. Why are coöperative methods best in training boys and girls for effective citizenship?

## CHAPTER VI

### SOME CONTROLLING ELEMENTS OF MANAGEMENT

SOME years ago the State Department of Education of Wisconsin issued an interesting and helpful bulletin, entitled *How to Have a Good School*. The author used this bulletin in instruction in school management for several years. He found it unusually suggestive for young teachers and feels more than justified in using some of the material for this chapter. The thinking teacher will read with interest and profit the various ideas herein presented :

#### I. PHYSICAL CONDITIONS

1. *Desirable*
  - a. Commanding view for schoolhouse site.
  - b. A well-kept, attractive yard of ample size.
  - c. A neat, well-painted, commodious building, with large covered porch, cloakrooms, closets for supplies, small library room.
  - d. Adjustable seats, good pictures on the walls, etc.
  - e. A good wood-shed.
2. *Necessary*
  - a. Good outbuildings.
  - b. A good supply of pure water.
  - c. Proper ventilation, and proper lighting of schoolhouse.
  - d. Suitable apparatus and supplies.
  - e. Sanitary surroundings.
  - f. Suitable fuel in abundance.

#### II. THE SCHOOL BOARD

1. Should take a personal interest and pride in the success of the school.

2. Should coöperate with the teacher and give her all the encouragement and help possible without making themselves troublesome.
3. Should be loyal to the teacher, and stand by her, if possible, in all troubles growing out of school discipline.

### III. THE PATRONS

1. Should give their hearty support to the teacher and not let local quarrels or factions disturb the peace of the school.
2. Should visit the school occasionally, and should, if possible, always go when specially invited by the teacher.
3. Should pay little attention to the ordinary school tales of the children.
4. Should support the board and the teacher in their efforts to maintain a good school.
5. Should send their children to school every day on time if possible.

### IV. THE PUPILS

1. Should attend school regularly, and should be on time if possible.
2. Should have their lessons well prepared on time every day.
3. Should take pride in the good name of the school.
4. Should help in all ways they can to make the school a success. This they can do by being regular and prompt ; by attending closely to the business of the hour, whatever it may be ; by being cheerful, good-natured, and ready to obey the teacher ; by being ready at all times to help those who need their help on the playground or on the way to and from school.

### V. THE TEACHER

The teacher is the life and spirit of the school. "As is the teacher so is the school." If the teacher is cross, irritable, and unsympathetic, the school cannot be a good one, no matter how favorable the conditions otherwise. On the other hand, an earnest,

sympathetic, capable teacher will do much to redeem the most unpromising situation.

1. *She should be master of the situation.* She should show good generalship. Teachers who have much or long-continued trouble with the discipline are not good generals. They may lack tact, good sense, firmness, courage, scholarship, interest in the work, training, pleasing and forceful personality, or some other thing; but the lack is there, and they should analyze themselves till they find out what is wrong and then remedy the fault or quit the business of teaching.

2. *She should be courteous and dignified.* Not easily annoyed or angered. This does not mean that she should be indifferent to disorder or to inattention on the part of pupils to their duties. She should greet her pupils pleasantly but not gush over them; should so conduct herself that they will feel free with her, but not familiar; their respect should be deep and genuine.

3. *She should be prompt.* Never tardy in getting to school, never tardy in her work in the schoolroom, never tardy in calling school to order, but never in too great a hurry to get away from the schoolhouse at noon or at the close of day.

4. *She should be firm.* She should be so confident of herself that she can talk in low decisive tones without threat or bluster even under the most trying circumstances.

5. *She should be natural.* She should be herself. But the natural self should be ladylike, dignified, courteous, alert, and active.

6. *She should be physically well.* Doubtless many good teachers are not blessed with good health, but this is a great misfortune at best, and it makes successful work much more difficult. Often people suffer needlessly for years because they fail to get the advice of competent physicians. Often people are not well simply because they do not pay proper attention to the well-known laws of health.

7. *She should be progressive.* "Only growing teachers are fit to lead growing pupils."

8. *She should be devoted.* "Teaching demands consecrated lives, and the time and energies of the most gifted."

9. *She should be prepared.* "The prepared teacher works in the light of the educational thought and experience of all the ages."

10. *She should be just.* Otherwise pupils will not respect her and her influence will be minimized.

11. *She should be tactful.* The tactful teacher will avoid many unnecessary conflicts, and disagreeable situations.

12. *She should be courageous.* A schoolroom is a poor place for a timid, shrinking soul. The teacher should be a leader, fearless, conscious of her own power, self-possessed even when most sorely tried. The teacher who does her duty has the support of the laws, the school board, the enlightened public sentiment of the district, and, best of all, her own conscience. A teacher should so teach and govern that she will not in the years to come have to blush at the recollection of her weakness or cowardice. Often she will be in doubt as to what is best to do, but she should throw her fears to the winds in settling the question.

## VI. ORGANIZATION AND DISCIPLINE

The teacher should organize and systematize everything relating to her school and her work, that can properly be organized and systematized. Children get into the habit of being systematic and orderly if they are properly supervised and trained by the teacher, and when this is accomplished the battle is well-nigh won. A simple, quiet method of calling pupils to the class and of dismissing them from the class should be used. The same holds with reference to dismissing school. Pupils should never be boisterous in the schoolroom. At recess and in bad weather they may laugh and talk but not run and romp and scream.

Many a teacher gives up on the eve of success. Then all her efforts are wasted. It should always be remembered that to organize and systematize the work of a school takes time, effort, and determination. Habits have to be formed, but the habits thus formed are valuable for life. Where system prevails large quantities of work can be easily accomplished, but where there is lack

of system the work suffers and the pupils make little progress. System should not be applied where it will do harm, as for instance in the order of calling on pupils in the recitation. The teacher who in the recitation begins at a certain place in the class and passes to the next in regular order is making a blunder.

*One word of caution.* Some teachers are naturally martinets. Such persons worship order. If such persons can have the implicit obedience of pupils instantly and always at the word of command, they feel that the chief end of life is attained. Such schools are apt to lack the hearty, wholesome spirit so much prized by every capable and right-minded teacher. The ideal discipline is not of the martinet type, obtained at the point of a stick or through the tongue lashings of a scold. Good order should be of the cheerful, hearty, coöperative sort where a fine spirit prevails. Occasionally, on account of mismanagement, a school gets into a state of rebellion. Under such circumstances heroic measures may be necessary for a time.

So far as the pupils are concerned, the tests of sound class discipline are (1) prompt and willing obedience, (2) close attention, (3) pleasure in giving satisfaction to the teacher, (4) eagerness to answer questions, combined with thoughtful answering, (5) good manners and right conduct generally, (6) thoroughness in work, (7) good order without unnecessary physical restraint, (8) collective and individual self-control.

On the other hand, the teacher, in order to assist in creating these qualities and to maintain them, should be :

1. Patient and sympathetic. Sympathy is the key to perfect mastery over the pupils.

2. Quick in decision. A firm but kindly exercise of will power calls forth a child's respect.

3. True to his own commands. It is as a rule a mistake to repeat an order. It is better to watch and wait until it has been fully obeyed, naming an individual or individuals if necessary. Nothing is more fatal to discipline than to allow one act of disobedience to pass — even when that act is only one of omission.

4. Careful to husband the voice. Shouting or noisy demon-

stration of any kind creates a bad impression. The teacher's eyes will aid the voice if they are used to cover the class.

5. Careful to sustain the children's interest. Every step ought to be one of progress and the pupils should be made to feel it.

6. Just. Praise of good work or worthy conduct is valuable. Blame, on the other hand, should be used sparingly.

7. Consistent in her demands. Abundant energy at one time and slackness at another, with corresponding demands upon the scholars, are mischievous in their tendencies.

8. Mindful that discipline is not an end, but a means to complete living.

9. Firm, self-reliant, and possessed of self-control.

10. Careful to avoid corporal punishment if possible. The instruments of reformation are employment and reward — not punishment.

11. Attentive to the pupils' physical comfort.

12. Always willing to give free scope for individual development. Self-expression should be encouraged. It avails little to tell children to be good; they must be led in that direction. One of the surest ways into the heart of the child is for the teacher to associate himself with what calls forth some of the happiest moments of its life.<sup>1</sup>

## VII. ENDS IN TEACHING

White, in his "*Art of Teaching*,"<sup>2</sup> states that there are three ends to be obtained in teaching: (1) knowledge, (2) power, (3) skill. These he calls the three fundamental ends of teaching.

To accomplish the first end the pupil must master so that he can use them on the instant and without the slightest hesitation or inaccuracy certain kinds of knowledge such as the facts of multiplication, of addition, of common weights and measures, the spelling of common words, the procedures in capitalization, and the like.

<sup>1</sup> BRAY, S. E. — *School Organization*; University Tutorial Press, Ltd., London.

<sup>2</sup> WHITE, E. E. — *The Art of Teaching*; copyright by arrangement with American Book Company, publisher.

This requires abundance of drill upon the fundamentals, that is, habituation exercises.

He should also have his mind stored with useful principles, useful maxims, information regarding his rights and duties as a citizen, and the like.

To accomplish the second end, power, and the third end, skill, it is only necessary to carry on the knowledge-getting process wisely and vigorously, upon well-selected subject matter.

Power and skill are closely related, and have reference to the ability to apply knowledge effectively and easily. Power and skill come largely from practice. A teacher, for example, may have at her command a great fund of knowledge concerning the art of teaching school, but power and skill come only by experience.

### VIII. THE MOST IMPORTANT THINGS

Successful teaching depends upon the emphasis that is thrown upon the most vital aspects of the school work. The most important matter of all is not the teaching of arithmetic or grammar, but the development of character. Now character is a word which includes in its meaning habits and motives.

Right habits are of slow growth, and the highest motives that appeal to men and women are beyond the mental reach of the younger children in our schools. It follows that character building, both on the side of habits and the development of motives, must be slow, but should be a consecutive process.

The principal habits that the teacher should especially strive to fix are regularity, obedience, politeness, punctuality, concentration of attention upon the proper business of the hour, truthfulness, honesty, reliability, thoroughness, and fair dealings with others. A pupil should develop self-control and should gradually grow to the point where he is law-abiding and ready to do his duty as he sees it.

Baldwin in his *School Management*<sup>1</sup> gives what he calls a "school code," which it will be observed bears upon this matter of

<sup>1</sup> BALDWIN, JOSEPH — *School Management and School Methods*; D. Appleton and Company.

habit. The first is, *work quietly*; the second, *be regular*; the third, *be prompt*; the fourth, *act properly*; the fifth, *do right*.

On the side of motives Baldwin gives first what he regards as base and low motives that should be avoided. These are malevolent motives, selfish motives, fear and flattery, rivalry and marks; but the royal motives, the motives to be used by the teacher, according to the same author, are, (1) desire for good standing, (2) desire for approbation, (3) desire for knowledge, (4) desire for efficiency, (5) desire for self-control, (6) desire for future good, (7) sense of honor, (8) sense of right, (9) sense of duty. It will be observed that these motives are graded into a system. This does not mean that a teacher must begin with the desire for good standing as the first motive and progress step by step up to the highest, for even young children may be appealed to often upon the basis of one of the higher motives, as for instance the sense of honor. Nevertheless the arrangement is approximately that in which teachers will find motives actually appealing to children. A young child will have a very feeble sense of duty but may have a keen appreciation of good standing, and the approval of the teacher. The teacher should appeal to the higher motives as rapidly as her pupils reach the plane upon which these motives are effective. It should be remembered also that pupils who do not ordinarily respond to high motives may occasionally be exalted to that plane through some occurrence in the school or through the reading of noble literature. The teacher who succeeds well as a character builder has the first and chief qualification of a good teacher. If she fails here her work is a failure, no matter how brilliant her ability as a teacher in the ordinary branches of study.

The next most important thing after character development is to make the instruction in the schoolroom so vital and so closely connected with ordinary human affairs, that the years spent in the schoolroom may be years in which the future citizen is rapidly acquiring the knowledge, power, and skill that will be most useful in life. In order to accomplish this end it is highly important that as much of the teaching as possible should be applied to the affairs of daily life. If pupils are taught mensuration in arithmetic, they

should be taught to apply this knowledge in practical ways, ways that easily suggest themselves to thoughtful teachers.

The most important branch of study in the common schools is *reading*. If the teacher is able to teach reading intelligently and well, she is doing more for her pupils than she could do by ability and skill in any other one branch of instruction. Failure in teaching reading is vital failure. To teach reading well includes appreciation of the literature found in the books used. That which makes reading so valuable a school study is the fact that it is the key to all other studies, and it is also a key to growth and development to the end of life.



#### IX. DON'T DO THESE THINGS

1. Don't stand too near the class.
2. Don't censure trifling errors severely.
3. Don't complain or grumble.
4. Don't give commands when you might give suggestions.
5. Don't dispute with an angry parent before the school.
6. Don't make spiteful remarks about parents.
7. Don't try to teach without good order.
8. Don't call for order in general terms.
9. Don't be strict to-day and lax to-morrow.
10. Don't punish without explanation.
11. Don't allow whispering.
12. Don't try to teach too much in one lesson.
13. Don't be satisfied with partial answers.
14. Don't talk too much.
15. Don't fail to get acquainted with the people in the district, particularly the members of the school board.
16. Don't fail to drill and review systematically upon the important matters you have tried to teach.
17. Don't forget that it is your business to teach as well as to hear pupils recite lessons.
18. Don't forget that teaching and governing a school is a difficult art, which requires study and painstaking effort.

19. Don't let your school run away with you. *Govern the school whatever you do or fail to do.*

20. Don't forget that the best way to govern is to *give pupils plenty of interesting and profitable work to do.* The teacher who succeeds in working up an abiding interest in study will have little trouble with discipline.

#### X. CRITICISMS BY SUPERVISORS

✓ 1. The teacher does not make intelligent use of the common school manual or course of study.

2. Pupils are not prepared for the work they are undertaking to do.

3. The school is not well organized.

4. The pupils run to the teacher to ask questions while she is conducting a recitation.

5. The teacher is indifferent; lacks interest.

6. The teacher spends too much time and exhausts her energies in attending parties.

7. The teacher does not keep a neat and orderly desk.

8. The teacher does not call school on time in the morning, at noon, or at recess.

9. The teacher is slow and pokey.

10. The teacher is a poor writer, and cannot stimulate the pupils to write well.

11. The teacher is a poor reader, and cannot help pupils to acquire the art of reading in a pleasing and intelligent manner.

12. The teacher fails to see or take notice of disorder.

13. The teacher has not a strong grip upon the school, but "fights it out" every day as best she can.

14. The people of the district are not interested in the school, and the teacher does not know how to improve the school sentiment in the community.

15. The teacher is timid, afraid of the pupils, the school board, and the patrons.

16. The teacher lacks life and animation, and the school is dead.

17. The outbuildings are in bad condition.

18. The room is not properly heated, lighted, or ventilated.
19. The library is not properly used or properly taken care of.
20. The teacher does the janitor work, and she does not do it well. The fire is not built in time to have the room warm in the morning, the sweeping is not properly done, and the dusting is not properly attended to.

#### XI. QUESTIONS FOR THE SUPERVISOR

1. Are the pupils at their seats studying or otherwise properly employed?
2. Are they at work in a vigorous manner, sitting in good position and seemingly enjoying their work?
3. Are pupils watching the teacher and taking advantage of every opportunity to engage in sly forms of disorder, such as whispering, note passing, throwing paper wads, changing seats, etc.?
4. Do pupils find frequent excuses for getting up and moving about the schoolroom?
5. Are pupils loud and boisterous in the schoolroom, when dismissed, or at recess?
6. Are the recitations for the older pupils vigorous thinking exercises, combined with suitable drill exercises? Are the recitations for the young pupils animated and bright?
7. Does the teacher hold the close attention of all her pupils during every recitation?
8. Which does she seem to get hold of best in the class exercises, the older or the younger children? How is this fact to be accounted for?
9. Does the teacher seem alert, vigorous, self-poised, competent? If not, is the failure due to lack of health, lack of nourishment, lack of sleep, lack of interest, lack of knowledge, lack of training?
10. Does the teacher keep the records properly?
11. Does she seem well prepared on every recitation she attempts to hear?
12. Does she study individual pupils so as to know what they are most interested in and what their ambitions are?

13. Does she get to school in good season every day, and call school promptly in the morning, at noon, and at recess?
14. Is her schoolroom neat, orderly, homelike?
15. Do her pupils take delight in her smile of approval, and is her lightest word of reproof keenly felt?
16. Does she criticize faulty work intelligently and in a manner to impress children?
17. Does she show pupils how to do that which they lack skill in doing? Does she explain the difficult points in the lesson in such manner as to make it simple for the children to grasp?
18. Does she assign lessons with painstaking care, but without waste of time?
19. Does she talk too much, or too little?
20. Is her manner bright and enthusiastic, or cold and heavy?

## XII. OF A MORE PERSONAL CHARACTER

Kindly allow me to make a few suggestions more personal in character than those that have preceded. The great majority of teachers are persons of high ideals, worthy motives, and unselfish character, but there are some who, through thoughtlessness, lack of purpose, or instability of character, bring reproach upon the fair name of teacher. One way in which this is done is by the unceremonious breaking of contracts with school boards. All teachers should consider their word, whether given in formal contract or by mere verbal promise, as absolutely binding upon them, unless sickness or some other insuperable difficulty should prevent the carrying out of the agreement. One course is always honorable in case the teacher is offered a much better position than the one she is engaged to fill. That is, to go to the school board in person, state the case, and assure them that she is ready to carry out her contract with them in good faith unless they can see their way to secure another satisfactory teacher. If she gets the consent of the board in this way her resignation may then be tendered. Under such circumstances there should be no begging or pleading, or statements that would lead the board to feel that they would have

a dissatisfied and perfunctory teacher on their hands if they did not grant the release.

Some teachers go to extremes in the matter of dress and thus create unpleasant comment in the community in which they teach. One extreme is to overdress; the other, the opposite extreme of carelessness in dress. School board members have frequently spoken to me of the teachers employed by them in respect to this matter of dress. Generally the criticism has been of the latter character mentioned above. Board members always say that they do not wish their teachers to dress expensively and that it would be inappropriate and out of place for them to do so, but that they should be neat and clean.

Another criticism that board members have made with considerable frequency is that the teacher is too much given to social affairs, particularly to attending parties. They believe that no teacher can be up to her full measure of alertness, cheerfulness, and general ability when she has spent a good share of the preceding night in dancing. Sometimes the opposite criticism is made that the teacher is lacking in social qualities.

Another criticism that school boards sometimes make is that teachers occupy the time in school hours reading novels, doing fancy work, and writing personal letters. It may be difficult for the teacher to occupy all her time in a small school in ways that are beneficial to pupils. If she overdoes the matter of helping them, she makes them dependent upon her and thus hinders their progress. Nevertheless, it is unsafe and wrong for a teacher, except on rare occasions, to devote herself to anything in the schoolroom other than that which bears directly or indirectly on her school work. If she has so much time on her hands that she does not know what to do with it, she may spend some of it in reading professional literature or in studying ways and means for improvement in her school.

While none of these criticisms may justly apply to you, yet it is well constantly to guard against the possibility of such criticism. Sometimes thoughtless teachers say that it is nobody's business what they do out of the schoolroom, but the fact is that the teacher

is judged, and properly judged, by what she does out of school as well as by what she does in the school, and this any teacher can readily see and appreciate if she is worthy to be a teacher at all.

You are either growing professionally, are at a standstill, or retrograding. It is impossible to be at a standstill for even a month, so that you are actually either progressing in knowledge, character, and skill, or you are doing the opposite.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make a brief outline of the points under the topic *The Teacher*, so that you can give a general five- to ten-minute discussion.
2. Cite some instances where courage would be necessary in different human relationships within the teacher's experience.
3. May a teacher be courteous to the children and still be firm? Name five things a courteous teacher will not do.
4. Discuss and illustrate fairness, firmness, and frankness, as three essential attributes of the successful teacher.
5. Discuss the statement: "Some teachers are naturally martinets." Why is that bad? Look up *martinet* in the dictionary. Was the old schoolmaster a martinet? How about the new schoolmistress?
6. What kind of order do you want in your school? Discuss two distinctly contrasted types of order. When will the problem of order solve itself? Why do some teachers never have any trouble about order at all?
7. Name five important personal habits which a teacher should have if she wishes to succeed.
8. What can a teacher do to secure regularity and punctuality of attendance? How can you secure the coöperation of parents in the solution of this problem?
9. If the supervisor states that the pupils are listless and bored what is probably the matter, and what can the teacher do about it?
10. Why will it pay a teacher to dress as well and as attractively as her purse will permit? Describe an appropriate outfit for a rural schoolmistress for September.
11. Discuss *pro* and *con*: Is it anybody's business what a teacher does outside of school hours? Would a board be justified in telling a teacher that she must not go to parties on school nights?
12. What is the relation between teaching and securing order?

## CHAPTER VII

### THE SCHOOL BEAUTIFUL

**Why this chapter?** The lives of all of us would be different, we should be happier and better friends and neighbors, if we were more capable of understanding, appreciating, and admiring the beautiful in nature and in humanity. The person who loves flowers, music, beautiful pictures, or beauty in any form finds life more worth the living. Beyond question the time to begin to cultivate a love for the beautiful is in early life. It is during the impressionable years of the child's life that a real beginning should be made by his teacher and parent to develop in him habits of appreciation. If the school can be made a beautiful place inside and out, the silent, daily influences of such surroundings will produce an unconscious though abiding influence for good in the child's life. If the schoolhouse is clean and the woodwork, walls, and ceiling are harmoniously tinted, if three or four classic pictures like *Sir Galahad*, the *Angelus*, or Corot's *Spring* hang on the wall, they will teach an æsthetic and moral lesson day by day that will have permanent influence upon the child's life.

The good, the true, and the beautiful are closely related. Beauty is uplifting. It is easier to be good among beautiful surroundings. Dirt, filth, disorder, cheap decorations, gloomy rooms, all pull life down and make honor and honesty more difficult. Parents and teachers have no right to surround young, growing children with degrading influences. Every effort should be made to assist the easily influenced child in order that he may develop normally in his æsthetic

and his moral nature. If the school is made an attractive place there will be less trouble in the matter of regularity of attendance. Children will be anxious to attend a school where the physical environment pleases them and helps them to make the most of themselves. Who can overestimate the good effect of a new, up-to-date building, artistically painted and decorated and set upon a large plot of ground, where several varieties of trees and shrubs are placed in harmonious groupings and where in season are found beautiful flowers—this and a clean, well-kept building at all times? Will not such conditions and surroundings be a distinct educational influence for all, young and old alike, in the district?

**Scrubbing, sweeping, dusting.** The schoolhouse should be kept clean for both sanitary and æsthetic reasons. It must be thoroughly scrubbed before school opens in the fall, and it will need a complete, general cleaning of floor, walls, and furniture several times during the year, preferably once a month, if possible. The teacher must secure the coöperation of the board and of as many mothers as possible, if she expects to secure the best results. She may on occasion lend a hand herself, thus showing her interest and setting a good example for others.

The teacher should have correct ideals of cleanliness and should make sure of a thorough job. Everything should be cleaned, and all old, dilapidated articles destroyed. In many country schools there is an accumulation of débris which is of no use to anybody and which serves only to gather disease-breeding dust. Clean out the library case, that catch-all for all sorts of rubbish, and don't forget closets, cupboards, and out-of-the-way places.

Effective cleaning cannot be done without plenty of soft, hot water, soap, and cleaning compound or powder. The water pail, tank, or whatever the container of drinking water

may be, and all cups, as well, require scrubbing and scalding very often, at least once a week. Scalding means the use of boiling, not warm, water, and plenty of it, to kill germs.

The modern way of sweeping is to make use of a push brush and plenty of sweeping mixture or compound, which can be purchased in small drums from any school supply house. The teacher will also need one good, ordinary broom beside the floor brush. Sweeping should always be done at night and the dusting as early in the morning as possible. Use every precaution to keep dust out of the air, because school-room dust may be and often is dangerous. When the teacher sweeps at night, she should open the windows and door so that as much of the dust as possible will blow out. If the floor is of hard wood and if it has been properly oiled during the year, the dust problem will not be so great.

It is well to have a dusting committee, and the dusting should be done thoroughly and regularly every morning. If several pupils are equipped with well-oiled dust cloths of good size they can soon go over all the surfaces within reach, — ledges, window casings, desks, shelves, teacher's desk, maps, stove, and all exposed surfaces. A feather duster should never be used, as it only flicks the dust from one surface to another. Buy or make a half-dozen dust cloths a yard square and wash them frequently. They should be of soft cheesecloth, oiled or chemically treated. The object of dusting is to remove the dust from the room.

**The floors.** “If you have a hardwood floor you are fortunate, but if you have an old wide-board, pine floor, it may be kept clean much more easily if you will have it painted. The best color for this is dust color, as it shows tracks less than other colors. Give the floor at least two coats of paint. Once a week at least it should be mopped and wiped dry. There is a little device for wringing out mops that will help

you to keep your hands out of the dirty water if you are obliged to do your own janitor work. This device is inexpensive, and can be bought at nearly any grocery store."<sup>1</sup> You can buy the "automatic" mop pail and wringer, for example, for about \$2.50. Some such appliance should be found in every rural schoolhouse. If the floor is oiled it will not need to be mopped so often, of course. A good deal of mud will be left outside if the front doorstep is provided with at least two good foot scrapers and a good-sized steel or coca door mat, all of which can be purchased for about three dollars.

**The woodwork.** If the woodwork is dirty, as it often is, the first thing to do is to give it a good scrubbing. If the room is to be redecorated, the woodwork should harmonize with the floor and the walls, being somewhat lighter than the former and a little darker than the latter. If the woodwork is a desirable light tan, the walls a still lighter tan, and the ceiling a light cream shade, the effect will be pleasing and the eyes will not suffer. The woodwork in a rural school should never be at all dark; and if most of the light comes from the east side, which is desirable, then the woodwork should either be the natural wood color, a neutral tint, or else a light tan.

**Walls and ceiling.** The walls and ceiling should harmonize with the woodwork, as has been stated. A light tan or a warm cream color with lighter cream ceiling make a good combination. The walls should be painted if possible with two or three coats, and the surface should be left soft and not glossy. This result can be accomplished by the process of *stippling* the last coat. The workman uses a large flat brush with long bristles, which he sets down upon the fresh paint and then moves slightly. By going over the entire surface

<sup>1</sup> From *The School Beautiful*, a beautiful and useful booklet issued by the State Department of Education, in Wisconsin, 1907.

in this way the uniform, glary effect is broken up so that the appearance is soft and velvety. Whitewash is not desirable because it is too white, and wall paper is unsanitary and not in good taste for a schoolhouse. Washable paint is the best, put on so as to have a flat finish. The rough plaster is unsatisfactory because it gathers so much dust. It is therefore unhygienic and becomes increasingly unsightly.

**Color schemes.** The general color scheme of the room will have much to do with the effectiveness of pictures or other means of decoration which the teacher uses. If the walls and ceiling do not harmonize, or if only primary, unmodified colors have been used, it will not be possible to remove the bad impression without a complete change of scheme. It is not too much to say that nervousness, irritability, headaches, disorder, and general discomfort and friction may be caused by a fundamentally wrong color scheme. Imagine red as the predominating color!

In deciding on the shades and tints to use, the location of the building must be taken into account. If the room receives a good deal of sunlight, then there should be a predominance of grayed tones. On the other hand, if most of the light comes from the north, then tints of red and yellow will be appropriate. Bear in mind that a suitable tone of red, for example, is usually a soft, reddish buff, merely a suggestion without the aggravating effects of red. A good rule is: *Use plain colors in soft dull tones.* If you do that you will not get far off the track.

The spectral colors must be dulled to produce the soft tones. The right tints of the middle three — yellow, green, blue — probably make the best colors to use. The author prefers greenish grays, sedge greens, stone greens, or very light olive greens, but in those states where there are many dark days these are not suitable. The ceiling may very well

be light cream color, as a rule, but never pure white. There is a long list of neutral greens, or greenish grays, which are very restful to the eye and which can be used in southern states where bright days predominate. Remember red irritates, blue depresses, but the soft, neutral tones of gray-green, tan, or buff are pleasing and usually satisfactory. *Never use any very dark or any very bright colors.*

If the author were teaching in a rural school building in any of the states where there are many clear, bright, sunshiny days, he would prefer light grays, bluish grays, light-green grays, or gray-green tones. These are delicate, desirable tones, but the usual painter seems quite unable to get them right. They are not recommended by the best authorities at the present time for the northern states. Challman says that blue gives an impression of coldness and incivility, but cream, gray, lemon, straw, and light olive-green suggest cheerfulness and vivacity, harmony, and good taste. Tan tones for the north and gray-green tones for the south, say south of the parallel of  $36^{\circ}$ , would probably be all right. The shades, tints, tones, or hues must be soft, dull, soothing, restful to eyes and nerves. "Field experience has shown that where the blues, greens, and grays are chosen for the northern states, they soon pall upon both teacher and pupil. The grays are cold, while the blues and greens are usually exaggerated colors. It seems next to impossible for the average small town painter to get away from sky blues and Kelly greens, in most instances."<sup>1</sup>

**Desks and other furniture.** In the average country school there needs to be a good-sized teacher's desk with plenty of drawers and a top of ample size, a seat and a desk for each child, adapted in each case to the size of the pupil, a comfort-

<sup>1</sup> SCHMIDT, H. W. — State supervisor of high schools, Wisconsin. From a letter to the author.

able chair for the teacher, at least one extra chair for the visitor, a bookcase of adequate dimensions, and a work table or reading table with two or three chairs. At the present time it is quite common to find a Victrola, Graphophone, or some other machine of the kind, in addition to the above. If these pieces of furniture can harmonize in color, the effect will be much more pleasing. Many times the pupils' desks are of a displeasing, bright color, instead of the natural wood color, suitably varnished. Quarter-sawed oak in a light dull finish is clean, neat, and easy on the eyes. The desks and other furniture, if wisely selected, will add much to the appearance of the room and will contribute to the sum total of the school beautiful.

The arrangement of the pupils' desks, if symmetrical, will add to the generally attractive appearance of the room. Undoubtedly the best desks are those which are separate from the seats, both desks and seats being adjustable to various heights. However, it is quite common to find that adjustable seats and desks are not adjusted. They are left in the same adjustment month after month and year after year, sometimes with one side of the desk lower than the other, to the physical detriment of the pupil. Adjustable desks should be adjusted; and as they often are not, in the absence



*Courtesy of American Seating Company*  
**Tubular steel combination desk**

of a janitor, perhaps about five sizes of the nonadjustable type would be better for the average country school. In arranging these in rows, only desks of the same size

should be placed in a row. Five rows with five seats to the row would accommodate most country schools. The smaller seats should be in the middle of the room. It will pay teachers and boards who contemplate buying desks to investigate the Moulthrop Movable Chair Desk. Model A, type X desk is made in six sizes.

The American Uni-

versal Desk is the latest type of movable, adjustable desk and seat, and like the Moulthrop is made in several sizes.

The American steel adjustable combined desk and settee is made with open front or lifting-lid book box and with adjustable chair or settee. This is the adjustable type of seat and desk which is screwed to the floor, and is made in three different sizes. Sweeping will be less difficult if the seat or chair is supported on a pedestal. These fixed seats and desks can be fastened down more securely if the floor is of maple instead of pine. These separate, adjustable desks and chairs, if kept properly adjusted, are the best from the standpoint of the child's health and posture, and are now recommended by many state and county school authorities. They are



*Courtesy of American Seating Company*

Steel adjustable desk and chair

made of steel and are unbreakable, cleanly and sanitary, hygienically designed, and attractive in appearance. They cost more than some other types and styles, but they are guaranteed to give 100 per cent service. *But they must be kept adjusted to fit the child.*

#### Window shades.

Much ignorance has been shown in the selection of shades for the rural school building, and the young teacher should know what is right, because the shades may be made both useful and ornamental if properly selected and hung. The chief purpose of shades is to shut out glaring sunlight. The

rule should be to admit all the light possible without producing a glare or without making it necessary for a teacher or any child to face an unshaded window. The purpose and the practice should not be the same in the school as in the home, as the two problems are quite different.

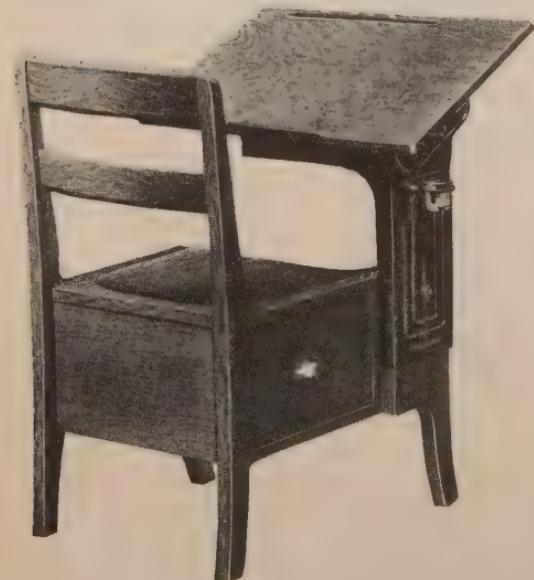
The worst possible shade practice is probably the old, very pronounced abominable green shade of opaque material hung from the top of the window, and usually drawn to the middle so as to look uniform from the outside. Everything about this arrangement is wrong — the material, the color, the hanging, and the teacher's adjustment — all wrong. One kind of material is translucent, light, waxed, strong muslin, although duck is now preferred by many. The best colors



*Courtesy of American Seating Company*

American universal desk

are white, cream, gray, lemon, straw, or very light olive green, all, of course, to harmonize with the walls. There should be two curtains for each window, except perhaps for windows on the north side, and these should be placed where the two sashes come together, the top one to roll up and the bottom one to roll down.



*Courtesy of American Seating Company*

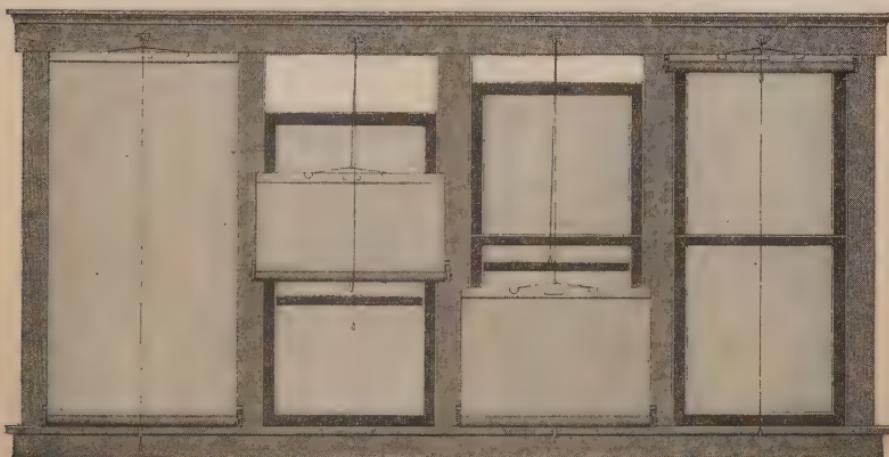
**Moulthrop movable chair desk**

Then the curtains should be adjusted during the day so that all the light possible will be admitted from hour to hour. It is well to have a trustworthy curtain committee in the rural school. On cloudy, dark days every square inch of window surface should admit light. Besides the two-curtain plan another successful one is to

have the curtain roller move up and down by means of a cord and pulley arrangement. The rural teacher should write to the Luther O. Draper Shade Company or the Oliver C. Steele Mfg. Co., both of Spiceland, Indiana, who will send some interesting and instructive illustrated literature to any teacher asking for the same.

The curtains or shades in a rural school should be of such material and so hung as to stand hard usage. There will probably be much handling by teacher and pupils each day in manipulating the shades to control the admission of light.

At the present time an increasing number of superintendents and other school officials are showing a decided preference for the tent- or awning-cotton duck, which wears well and admits a soft, diffused light when drawn. This duck material is not filled or painted and may be purchased in white, gray, or light tan colors. An increasingly common practice at the present time is not to use spring rollers, but instead a



*Courtesy of the Luther O. Draper Shade Company, Spiceland, Indiana*

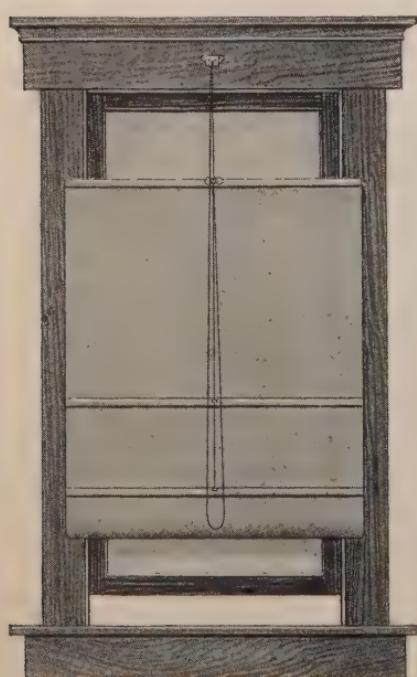
#### Adjustable duck shades on rollers

It is easy to shade any portion of the window space.

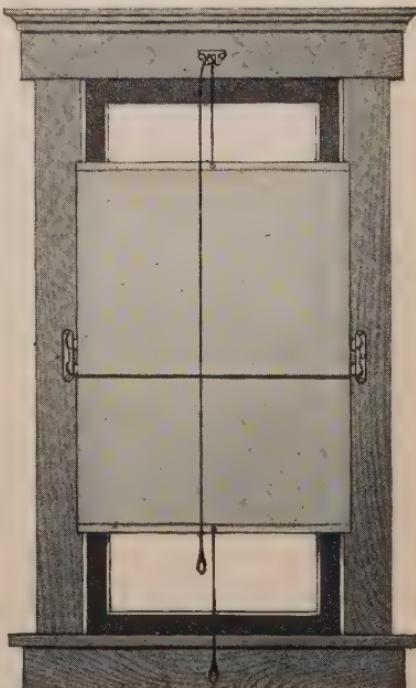
double cord and pulley mechanism, which is easy to operate and does not so readily get out of order. The shade folds instead of rolling on spring rollers. As one or more of the spring rollers in almost every rural school are often out of order, and as the shade material used is more or less opaque, gray or tan duck folding shades, adjusted with the double cord and pulley, should be investigated by teachers and boards.

**Blackboards.** Blackboards are a necessity from the stand-point of instruction, and they can be made to serve a useful decorative purpose as well. Various materials are used for

blackboard surface ; probably slate is the most durable and generally satisfactory. The author, however, prefers hyloplate, because it has a softer writing surface and because a desirable soft, dull shade of green liquid slating can be used whenever reslating is needed, which will be every year or



**Folding shades without rollers**



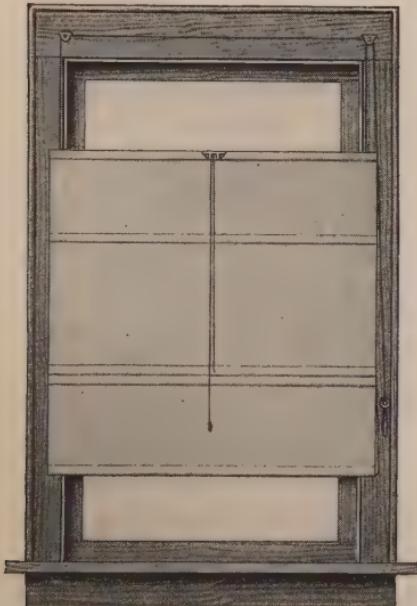
**Double roller shade**

A separate shade for each sash.

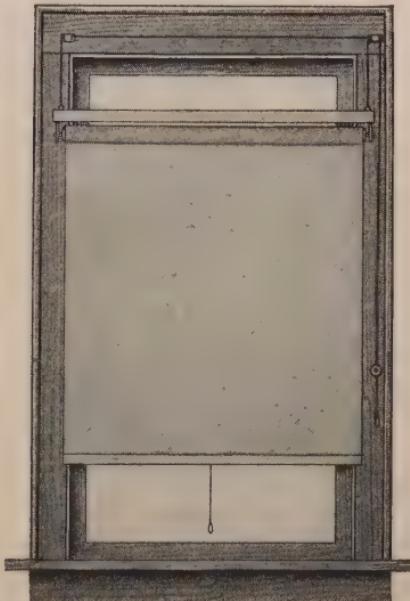
two. The reslating is not difficult ; with a wide, special slating brush the teacher can do the work in a short time. Try out the slating on a small piece of board first, and tone down the green, should a green tint be used, if too pronounced. The hyloplate can be purchased in varying widths and of any required length. It must be placed on a smooth, flat, level surface and a little allowance should be made for expansion.

*Courtesy of the Luther O. Draper Shade Company, Spiceland, Indiana*

It must be fastened down firmly ; if care is taken in placing it, such a board will last for many years. The author has used such a board in his recitation room for the past ten years in preference to slate, and it is apparently good for another ten years. It has been reslated repeatedly.



**Adjustable folding type of duck shade**



**Movable roller duck shade**

*Courtesy of O. C. Steele Mfg. Co., Spiceland, Indiana*

If it is necessary to use common boards or plaster for a blackboard it will be advisable to cover the surface first with heavy manila paper, which must be glued down firmly so that no air bubbles or blisters are left. Then, if two or three coats of a good quality of liquid slating, which may be purchased of any school supply house, are placed upon this manila-paper surface, a usable board will be the result. The blackboard surface should always be dull, never shiny or glary.

It should be stated here, in all fairness, that some author-

ties will not recommend hyloplate. Many superintendents will have nothing but natural slate, which is of course the most durable, and possibly, on the whole, the most satisfactory. One difficulty with the use of liquid slating is that, for quite a time after a fresh coat has been applied, the marks do not erase readily and considerable washing is found necessary. Rubbing crayons into the fresh surface helps. Slatting is much to be preferred to the rough, chipped, scaly boards so often found in rural schools.

It will pay rural school boards, county superintendents, and rural teachers to investigate the new *Sterling Slate Blackboard*. This is a composition, not natural slate. It is guaranteed not to warp, and to last as long as the building. It is produced by the same people (the Weber-Costello Company, Chicago Heights, Ill.), who have put out hyloplate for forty years. You can get Sterling Slate in  $3\frac{1}{2}'$  or 4' widths and in any length desired up to 8 feet. Write some reliable general supply house and ask about the new Sterling Slate, or write direct to the Weber-Costello Company.

For the rural school the board should be about 42 inches wide and extend to within about 26 inches of the floor. This will be low enough for the small pupils and not too low for teacher and older pupils. The rural teacher may ornament the upper border of the board with white or colored stencil figures, which should be changed occasionally. If blackboards are placed between windows, pupils should not be asked to look at work on such boards any more than is necessary, as it is injurious to the eyes to do so.

**Bulletin board.** The bulletin board is a real necessity in a country school for posting samples of pupils' work, such as writing, construction work, maps, diagrams, drawings, and for programs, notices, and the like. If the bulletin board is

of the right material and construction, and if the work placed upon it is tastefully arranged, the entire effect will be pleasing and will add to the generally good appearance of the room.

Cork bulletin boards can now be purchased in different sizes and at prices ranging from about three to nine dollars. These boards are made of special cork carpet, which is both light and durable. These boards are often neatly framed in southern pine, and the sizes range from about  $2' \times 3'$  to  $6' \times 3'$ . Besides these boards the rural teacher can purchase cork board in varying lengths, about one foot wide, to place above the blackboard for posting drawings, exhibits, specimens, and pictures. Enough for an ordinary rural school house would cost from three to four dollars.

The author likes a bulletin board made of soft pine boards, one inch thick and about eight inches wide. The boards should be well planed and entirely free from knots. Five such boards, about five feet long, well matched, will make a permanent, good-sized, and satisfactory board. These boards may be covered with light buff burlap which is fastened down at the edges with upholstering tacks. Braid to match the burlap and tacks or nails with heads of a harmonizing color should be used around the edges. Quarter-inch thumb tacks with large heads should be used to fasten notices on the board. A box of 100 such tacks can be bought for about 15¢. The bulletin board should be placed on a smooth, flat, solid surface.

**Selection of pictures.** The purpose of pictures in the schoolroom is twofold: first, to decorate the bare and silent walls; and second, to direct the child's taste and sympathy toward the beautiful. A third but much less significant purpose is to familiarize the pupil with recognized works of art and methods of expression in art. Every schoolroom should have at least one picture of artistic merit.

If means permit, it is well to have more, but it is a great mistake to have too many.<sup>1</sup>

Here are some suggestions which will be of service to young teachers when they find it necessary to choose a good picture for the decoration of their schoolrooms:<sup>2</sup>

1. Do not buy cheap pictures, whether cheap in subject, material, frame, or in any other way. It pays to get the best, or at least a very good, quality. One good picture is worth any number of poor ones.
2. In making a selection try to find a subject which is adapted to the tastes and appreciations of boys and girls. In most country schools the majority of the pupils are in the lower grades, and their interests should be considered.
3. The size of the completed and framed picture should be adapted to the size of the walls and to the height of the ceiling. A large picture in a small room does not make a good appearance, and *vice versa*.
4. There are various subjects which are classical in character and of established value, such as *Sir Galahad*, *The Lark*, *The Knitting Shepherdess*, *Moorland and Mist*, *Sheep in Winter*, *The Horse Fair*. The teacher should consider such standard pictures in making her selection.
5. Oftentimes it is wise to choose a picture in color, especially for the smaller children. The colors should not be loud, but in harmony and good taste. Children delight in color; but it is part of a teacher's duty to see that children develop sensitiveness in color the same as in music.
6. For a country school it is usually wise to select a picture which shows some life and action. *The Horse Fair* appeals to children, for example, because it shows strength and beauty in horses, and is full of life and energy.
7. When choosing a picture the teacher should consider the artist and the theme he presents. Then the children should be given

<sup>1</sup> From *The School Beautiful*.

<sup>2</sup> Comp. *The School Beautiful*.

definite instruction concerning the life and work of the artist. The picture should also be described, and made clear in its meaning, suggestion, or implication.

8. Before making a selection the teacher would do well to send to various companies for their catalogues, with prices of both framed and unframed pictures. It is now easily possible to secure miniature reproductions of all standard pictures; these will serve as a useful guide in choosing the most appropriate subjects.

9. Select pictures of simple outline and of little detail. Complexity in design and in execution should be avoided. If there is too much of detail the child will be confused, and his attention to the entire subject or theme will be distracted and withdrawn. We desire the child to get a clear, comprehensive conception of the whole artistic unit; this will be impossible if details hold the attention.

10. It is well to choose bright, cheerful pictures which will suggest pleasant thoughts and encourage the children to think, feel, and will on a higher plane of life.

**Framing and hanging.** As this chapter is being written the author has helped to select two pictures for his school: *The Mill*, by Ruysdael, and *The Angelus*, by Millet. These pictures, framed, are about 40" by 33". They are both tinted apographs, something relatively new in the field of art. They are made by applying specially prepared colors by hand over rich-brown photo gelatin prints, the result being a very pleasing suggestion of the mellow old masterpieces. The frames are dark golden oak about  $2\frac{1}{2}$ " in width. The pictures cost about \$12.50 each and were presented to the county normal by one of the graduating classes.

The best frames for a schoolroom are of plain, natural wood rather than gilt, which is usually not in good taste for schools. The frame should harmonize with the picture; dull green, black, or brown is often quite suitable. If a mat is used, the frame can be considerably narrower than

without a mat. The picture should be framed so that the attention of the observer will be called to the picture rather than to the frame.

In a country schoolhouse the pictures should be hung low so that the children can see them readily, but there should be some space between the picture and the upper edge of the blackboard in order that the wall surface may suitably set off the picture. The picture should hang flat so as to be a part of the room, and it should always be so placed as to receive adequate light. Picture molding is desirable but not necessary as both nails and wire can be hidden back of the picture. This is now a common practice. Where several pictures are used they should not be arranged too uniformly as regards height or distance from one another, and in every case the picture should be adapted to the available space. Here are a few suggestions:

#### PICTURES THAT PORTRAY FARM LIFE

BRETON — *The Song of the Lark*

MILLET — *The Gleaners* — *The Sower* — *Feeding her Birds*

LANDSEER — *Shoeing the Bay Mare* — *King of the Forest*

COROT — *Spring* — *The Lake*

TROYON — *Return to the Farm*

ROSA BONHEUR — *A Norman Sire* — *Humble Servant*

HERRING — *Three Members of a Temperance Society*

LE ROLLE — *By the River* — *The Shepherdess*

RUYSDAËL — *Landscape with Mill*

HOBBEMA — *Avenue of Trees*

CONSTABLE — *The Cornfield*

HUNT — *Deer by Moonlight*

HOVENDEN — *Breaking Home Ties*<sup>1</sup>

<sup>1</sup> From *Michigan Elementary School Syllabus*, by permission of the State Superintendent.

## GOOD BOOKS FOR THE TEACHER

1. *American Magazine of Art*
2. EMERY, M. S. — *How to Enjoy Pictures*
3. HEBB, BERTHA Y. — *Appreciation of Pictures*; Bureau of Education. October, 1923. A fifteen-page bulletin.
4. HURLL, ESTELLE M. — *How to Show Pictures to Children*.
5. *Mentor Magazine*
6. NEALE, O. W. — *Picture Study in the Grades*
7. OLIVER, M. I. G. — *First Steps in the Enjoyment of Pictures*.
8. *School Arts Magazine*

**Plants and flowers.** If the teacher loves growing plants and flowers, she will be able to make use of them to beautify her room and to train her pupils to appreciate the beauties of nature. Unless the building is kept warm at night and over the week-end, the problem of keeping plants will be practically unsolvable. However, if the plants can be kept from freezing, a primrose or two and a begonia will add much to the brightness and cheerfulness of the room. Decorative pines which do not freeze can also be secured in small sizes in pots. One or two of these will add a most acceptable touch of green freshness during the dark days of winter. If plants are kept in school they should be well cared for, and a committee to look after them would be a wise arrangement. In the fall and spring children love to bring flowers, both wild and tame, for the teacher and for the school. Suitable vases should be provided, and not too many flowers should be brought at any one time. A rural schoolroom can be made a most beautiful place in the fall with golden rod or wild roses, later with tinted sumach leaves and decorative branches of various kinds. In the spring there is a profusion of blossoms which can be utilized. Children delight in doing something for the school and for the teacher; here is a chance to teach many useful lessons.

**Care of the yard.** The yard should be of adequate size, never less than one acre and much better two or three acres. It is not the purpose here to go into detail relative to the selection and laying out of the school site. Just why certain school grounds were chosen by the tax payers in the early days has often been a source of wonder and conjecture. We have seen schoolhouses set upon low, marshy pieces of ground, or upon barren, rocky, and windy hilltops. Land was cheap fifty to one hundred years ago, but still the cheapest and worst sites in the district were many times set aside for the schools, places of ugliness and discomfort to the generations of teachers and of boys and girls to follow. The school building had best be located on a gently sloping hillside where it will be protected from the cold winds and where it will have plenty of sunlight. The surroundings should be quiet and beautiful. If possible there should be a natural background of attractive landscape.

The soil should be rich and with good drainage. This will make it possible to have trees, shrubbery, and flowers, which should be found on every school ground. The teacher must take things as she finds them, however, and make the best of existing conditions. The first thing to do in September is to see that the weeds and grass are cut, raked up, and burned. This should be done the first week. Then the teacher and the children should pick up all sticks and stones and perhaps rake the entire yard. If wood is piled out-of-doors it ought to be put up in neat-looking tiers; this will also be a good job for the teacher and children. The wood shed, if there is one, should be thoroughly cleaned out and put to rights. During the fall about all the teacher can do is to see that the yard is kept in good order.

Early in the spring, as soon as conditions will permit and the teacher and pupils have cleaned up the yard, it may be

possible to arrange for a flower bed and to start some vines which will partially hide the unsightly outbuildings and the wood shed. "The location of the schoolhouse cannot be changed, but the surroundings may be made beautiful. Trees and shrubs, vines and flowers may be induced to grow in apparently unfavorable places. Desolate playgrounds may be made shady and delightful. Ugly fences and buildings may assume lovely and graceful shapes. Corners and odd places may be made spots of beautiful color." . . . "It is certainly due pupils in a school that they should have as much beauty about them as possible. The beautifying of the school grounds will not only give them pleasure through the eye, but will create in them a love for growing things which will be of benefit to them all their lives."<sup>1</sup>

The following trees are suitable for school grounds where they can be grown: elm, Norway maple, basswood, white oak, white ash, sugar maple, tamarack, cutleaf birch, wild black cherry, Russian mulberry, Colorado blue spruce. Among shrubs suitable for the school yard the following are worthy of mention: sumach, prickly ash, spirea, wildrose, cranberry, elderberry, syringa, hydrangea, purple or white lilac, Weigelia, button brush, oleaster, dogwood, honeysuckle, witchhazel, willow.

✓ **Ten things you can do.** In this entire program of making the school more beautiful, inside and out, there are several definite things which any teacher can do with profit to herself and to her pupils.

1. The first is to study the situation and to make an inventory of property and of conditions. A thorough examination of the building inside and out, as previously suggested, will disclose existing needs as points of departure for making needful changes.

<sup>1</sup> BARNES, INA G. — *Rural School Management*; The Macmillan Company.

2. Clean up everything in building and yard and keep them clean. The teacher will probably need to act as the director of activities, and she will usually be able to secure the coöperation of some mothers and of the older pupils.

3. Try to interest the mothers early. This can be done through a mothers' meeting. No objective for a mothers' club could be more worth while than that of bringing about a more attractive school environment.

4. You can reslate your old blackboards so they will look fresh and so they will be much more serviceable. Any rural teacher can do this. Consult some catalogue for quantity and kind of material to use. A coat put on Friday afternoon should be dry by Monday. You should put on two coats, which can be done in successive weeks. If you use a green shade, tone it down so that it is a neutral, mild, very inconspicuous green.

5. You can have a box social with a program during the fall and secure enough money to buy at least one good picture.

6. You can arrange to have several committees to assist you in keeping the room attractive. You may appoint the following committees for this purpose: dusting committee, bookcase committee, curtain committee, blackboard committee, yard committee, stove committee, and cloakroom committee. These committees need not serve long, and no child should be compelled to do such work.

7. If the desks are not arranged as they should be you can change them. In order to do this you should enlist the coöperation of the board and some of the older boys. Desks not needed should not be permitted to take up desirable floor space. They can be stored in some safe place for future use when needed.

8. You can look up prices of various pieces of equipment which would add to the appearance and the educational suggestiveness of the room and the school. Show illustrations to members of the board and convince them of the value of what you ask for. When the board fully understand the need they will be much more likely to furnish the money.

9. You can have an adequate bulletin board. You can pur-

chase the cork, or a sheet of composition board, or the pine boards, and put up the board yourself with the assistance of an older boy or two.

10. You can, through general exercises and in other ways, interest all your children in beautifying the school. You can instruct them concerning pictures, harmony of colors, the beauty of trees and flowers, and gradually through the year you can develop power of appreciation and mold a public sentiment in school and community which will finally demand that the old schoolhouse be remodeled and redecorated, if need be, during the next vacation.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. *a.* Show that a beautiful school environment constitutes an essential part of the child's education. *b.* Name all the forms, kinds, or sources of beauty you can think of which can be utilized in a rural school.

2. Make a complete list and bill (prices and totals) of all the tools, supplies, and equipment needed to keep a rural schoolhouse clean and neat.

3. How much will it cost to oil the floor of a country schoolhouse four times during the year, if the room is  $24' \times 30'$ ? What special kind of oil should be used?

4. Find the total cost of two good foot scrapers and one cocoa mat about two by three feet. Which do you prefer, a cocoa mat or a steel mat? Why?

5. In a given schoolhouse if most of the light comes from the east side in which direction will the children face? Will the teacher need to face any windows? How will you have the curtains in the forenoon? In the afternoon?

6. Secure several reliable color cards, giving various shades and tints of the primary colors. Then arrange two correct color schemes for rural buildings. One of the buildings is poorly lighted and the other gets an abundance of sunlight.

7. Look up the word *stipple* in *Webster's New International Dictionary* or the *Standard Dictionary*. What is *flat* paint? What is a *priming* coat? Why is paint better than calcimine? What is the difference between calcimine and alabastine?

## CHAPTER VIII

### DAILY PROGRAM FOR THE RURAL SCHOOL

**Why a program?** At the present time this question needs only a brief consideration. In the older books on management the authors had need to discuss the reasons for a program, as the average rural teacher had either a poor program or none at all. To-day, in all of the more progressive states, a definite daily schedule is usually printed in the state manual or course of study for the guidance of teachers. There is great variation in practice. In this chapter three different programs from three different states are printed for suggestion and guidance. In general, a good program is a great saver of time and energy. Our modern life is necessarily determined in large measure by time schedules of some sort, and pupils should be trained to do work on time, in accordance with business-like procedures and time- and energy-saving devices. A good program prevents overemphasis on certain subjects and secures proper adjustment and correlation between study and recitation. We are beginning to understand that individual and group study, both supervised and unsupervised, should receive the major part of the teacher's time and attention, rather than recitation. Mr. Hoffman's Illinois program<sup>1</sup> is based on this principle. It will pay any rural teacher to make a careful study of the problem of program making.

<sup>1</sup> HOFFMAN I. U.—*Organizing and Conducting a One-Teacher School in Illinois.* A very useful sixty-three-page bulletin issued by the State Superintendent of Public Instruction, Springfield, Ill.

**Some general considerations.** 1. The program must provide for a proper amount of work for each child. When the program is made up the teacher should note whether each pupil has a fair proportion of the time in each of the four quarter-day divisions of the day. Each child should have about five exercises or study recitations a day, or opportunity for that number, so as to receive adequate personal instruction from the teacher.

2. In the apportionment of time the relative importance of the various subjects requires attention. For example, a good deal of time and attention must be given to reading and language in all grades, for these subjects are fundamentally important.

3. The pupil's physical condition needs to be considered, and the teacher should know the favorable and the unfavorable periods so far as fatigue is concerned. Every rural teacher will find it of great advantage to understand the nature and laws of fatigue. If she studies the problem she will not be surprised at the pronounced evidences of loss of energy about eleven o'clock in the morning, and she will value periods of relaxation and rest more than do some teachers.

4. The time allotted to each class should be determined by the nature of the subject, the age of the pupils, and the number in the class. Reading should have more time than arithmetic or history, the older pupils need longer class periods than the younger, in general, and a class of two doesn't require as much time as a class of six.

5. In order to reduce the number of classes in a rural school it is necessary either to combine or to alternate classes, or to do both. Five recitations a day for each grade would mean forty classes a day, and that is entirely out of the question. It would be highly desirable if no rural teacher had more than twenty classes a day — better, fifteen. If study is

made the governing factor, rather than recitation, class periods can easily be reduced to less than twenty per day.

6. No program will apply equally well to all schools. A general program for an average or typical rural school can be made out, and three such programs are given in this chapter; but if a teacher has only six grades she can give more time to certain classes and to the supervision of both individuals and groups.

7. The teacher should not count too much on pupils' work at home. Such work should be quite limited as to the amount and kind to be done.

8. Deliberate plans should be made to secure a proper variety of work; the teacher should arrange to have periods of rest and relaxation follow periods of work. At least there should be such change of work that no child will become unduly fatigued. The teacher, too, needs to find time to look after the seat work.

9. Such subjects as writing and drawing usually come just before the afternoon recess, when there is likely to be better muscular control than immediately following active exercise.

10. In adjusting the program and in carrying it out day by day the teacher should consider herself as well as the pupils. There must be no hurry and no worry if the best kind of work is to be done. In no sense should the teacher become a slave to her program.<sup>1</sup>

**Proper classification of pupils.** 1. By the end of the second week of school the teacher should know the relative classification of each child. One's predecessor should have left a record; but if she has not, get the facts from pupils and parents. During the first week or two the teacher should make use of homemade inventory tests to discover the knowledge and abilities of her pupils in the various subjects, but

<sup>1</sup> Compare COLEGROVE, C. P. — *The Teacher and the School*.

she should be very careful not to put pupils back unless absolutely necessary. Tabulate the classification of your entire school on a large sheet of manila tag board, so that you can refer to it readily.

2. Classification is the teacher's prerogative and duty. She must settle the matter herself and not permit parents to do so. Often in classifying pupils satisfactorily, compromises can be effected. The teacher must consider the best interests of each child in the light of several controlling elements.

3. A country school cannot be classified like a graded school. That is practically impossible. Don't try it. Failure to see that grades are to be grouped together (7 and 8, 5 and 6, 3 and 4) in reading, arithmetic, and other subjects constitutes the source of many a teacher's difficulty. At the present time there should be no rural school in this country where such grouping is not practiced.

4. In order properly and promptly to classify her school a teacher must know: (a) the subject matter to be taught, including an outline of the course of study; (b) the abilities of the pupils, determined by modern methods of testing; (c) the advancement of each pupil, his present place in the grades in each subject. Mary may be in the sixth grade in reading but in the fourth grade in arithmetic.

5. Start with reading. In a school comprising all grades, have six reading classes: A (7 and 8), B (5 and 6), C (3 and 4), D (2), E (1), F, beginners. Beginners should not be permitted to start in the spring. Four language and four arithmetic classes, besides the beginners, will be sufficient, as follows: A (7 and 8), B (5 and 6), C (3 and 4), D (1 and 2).

6. Usually you will have only two formal spelling classes, one for the seventh and eighth grades, and one for the fifth

and sixth grades. The rest of the pupils will spell in connection with the work in reading.

7. Combine gradually. Show the school that good work determines promotion. Review and test often. Don't allow a child to keep on trying to do work beyond his depth. Instead of putting a child or a class back, proper reviews and the necessary teaching may be utilized until the work is up to grade. Demotion is serious business, and is usually unnecessary.

8. In determining a pupil's classification in school some present-day authorities advocate the regular use of general intelligence tests; in some city systems such tests are used extensively. Dr. Colegrove<sup>1</sup> states: "There is no question but that the use of intelligence tests is of value to teachers and superintendents (a) in discovering the causes of the lack of progress of individual pupils who seem unable to keep up with other children of their own age; (b) in revealing unusual ability in pupils who have been classed as bad, lazy, or indifferent; (c) in determining doubtful promotion cases; (d) in emphasizing the need of flexible grading and frequent readjustment of classes; (e) in saving pupils who are below normal from injustice at the hands of teachers who ignore the fact of individual differences among pupils of the same grade, age, or class."

9. It has been suggested that "several bases be used either singly or in combination for purposes of classifying pupils by ability. Among these are: (1) personal judgment of the teacher, (2) school marks and progress records, (3) standard test scores and educational age, (4) intelligence quotient, (5) mental age."

"Great weight should undoubtedly be attached to mental

<sup>1</sup> COLEGROVE, C. P.—*The Teacher and the School* (Revised edition); Charles Scribner's Sons.

age and combined attainments in several standard tests, but great weight should also be attached to the human-analyst teacher. Incidental factors such as health, physical condition, home condition, and the disposition of the child should be given consideration. Determination of a child's classification should usually be made on the basis of general native ability."<sup>1</sup> But all teachers should always consider such factors as age, size, family advantages, spirit, and attitude, in addition to those mentioned above. *Ability to read* is an important factor in settling the matter, particularly in the lower grades. Reëxamination and reclassification should take place whenever the evidence warrants.

**Grades and classes.** "The maximum number of grades for a one-teacher school is eight, and in reality this is too many to be handled successfully. But since there are so many schools in which this condition necessarily exists, any discussion of the program for the one-teacher school must take into account the possibility of eight grades being represented. Sometimes there are two or three divisions in the first grade, due to the fact that beginners have entered at different times during the year. Something should be done to stop this practice. A teacher in a rural school should not be expected to form more than one beginning class during the year. The time to start that class is in September. If a child reaches the minimum school age in December, and his parents insist upon his starting school as soon as he arrives at the legal age, he should be permitted to enter school in the September before. Otherwise, he should remain at home until the following school year. Occasionally a one-teacher rural school is found that is attempting to do ninth-grade

<sup>1</sup> Quoted from a report of a special committee of the Wisconsin City Superintendents' Association, Supt. MILTON C. POTTER, Milwaukee, Chairman of the Committee.

work. Such a procedure should not be permitted. It should be borne in mind that a one-teacher school is *an elementary and not a secondary school.*"<sup>1</sup>

**Guiding principles in program making.** Perhaps the best general brief discussion of the problem of program making for the rural teacher is found in *Rural School Leaflet No. 10*, issued in February, 1923, by the Bureau of Education, Washington, D. C. It can be secured for five cents by sending to the Superintendent of Documents. This twelve-page bulletin is written by Miss Edith A. Lathrop, who first makes a clear statement of the problem and then considers various means of solution. It is now generally accepted that at least four expedients are controlling and essential in solving the problem of the daily program for a rural school. They are grade grouping, correlation of subject matter, alternation of subjects, and alternation of grades.

**Grouping.** The most common and satisfactory grouping of grades, in which the eight grades are organized into five groups, is as follows: group one — grade one, (E); group two — grade two, (D); group three — grades three and four, (C); group four — grades five and six (B); group five — grades seven and eight, (A). For most of the work of the school this means Classes A, B, C, D, E. This arrangement is now in use in many states. By stressing groups or classes A, B, C, the emphasis on grades, as such, will be much lessened, as is greatly to be desired.

**Correlation of subject matter.** Correlation of subject matter has long been practiced in both rural and urban schools. In the lower grades it is now the usual practice to correlate reading, language, and spelling. Language and civics and language and history are common correlations.

<sup>1</sup> EDITH A. LATHROP.—*Rural School Leaflet No. 10*, February, 1923; *The Organization of the One-Teacher School*. Bureau of Education.

In this connection, the student should note the correlations in the Wisconsin program printed in this chapter. It is not unusual at the present time to present health lessons for the first five grades in the general exercises. In the third and fourth grade class — the C class — home geography is readily correlated with reading.

*Alternation of subjects.* It is not necessary that every class recite every day in every subject. It is entirely possible to use the principle of alternation, thus securing fewer class exercises and more time for each one. Drawing for the entire school may be allotted two twenty-minute periods a week and writing three. The A class may have history three days in the week and civics two days, if necessary. Sometimes it is better to teach civics for a half year and history for a half year, than to practice weekly alternation. This plan will result in more continuity and concentration, as a rule. In some successful rural schools a Monday period is devoted to music for all the school, Tuesday to drawing, Wednesday to nature study, Thursday to writing, and Friday to construction work. If a good thirty-minute period is used each day, the results are more satisfactory than by the use of several short periods a day.

*Alternation of grades.* Perhaps this is the most helpful of all the proposed principles for the reduction of the number of classes, and for the general improvement of the program. It is now used in many states, and is a necessary correlative of the grade-grouping plan discussed above. The scheme has been used in Illinois for many years. The reader is referred to the bulletin mentioned above for an adequate exposition of the idea—pages 4, 5, and 6. If a complete discussion of the detailed arrangement is desired, students should secure the Illinois State Course of Study, which costs about \$.50, or the Montana State Course of Study, which is sold for about \$1.25.

The basic fact, upon which the device of alternation of grades is founded, is that the traditional order of topics in the teaching of many subjects is not necessary or vital. If, for example, pupils have a general knowledge of geography as a result of studying all of the first book of the two-book series, it is then immaterial whether they study the subject matter for the seventh grade or the eighth grade *first*. So, in the odd years (1925-1926) the eighth grade work may be taken, and in the even years (1926-1927), the seventh grade work. In Illinois, for the fifth and sixth grades, this principle of alternation of grades by years is carried out for every subject. The plan works readily in such subjects as reading, but is more difficult in arithmetic. However, we now know that the old-time order of teaching the multiplication table, to illustrate, is not essential and indeed not the best. So, in Montana, the 5's, 6's, 9's, 10's, and 11's, are taught in the odd-numbered years, and the 3's, 4's, 7's, 8's, and 12's in the even-numbered years.

By alternation of grades the third, fifth, and seventh grade subject matter may be taken in the even-numbered years and the fourth, sixth, and eighth grade material in the odd-numbered years. It is not necessary or wise to make use of alternation in grades one and two. But for the other grades, by grouping and alternation, larger classes will be possible, longer periods can be used, and the number of classes is reduced. It is not advisable for any teacher, by herself in a single school, to inaugurate this system. Alternation by grades and years should at least be county wide in extent; it is much better to have the entire state for the administrative unit so as to secure uniformity and to prevent confusion.

**Attention and fatigue.** A rural teacher should understand the exhausting effects of continued attention, and the program should be arranged in such a way as to reduce the oc-

casions for undue fatigue to the minimum. Small children can give attention for only a limited time ; for them a change of activity should be provided at frequent intervals. The best work can be done the first hour of the morning. After good recess periods and at the close of the noon hour children are able to work hardest on the tasks of the school. Those subjects calling for least effort and attention should be placed during the second half of each quarter-day session, so far as practicable. The way in which the teacher carries on the work of the school has much to do with the conservation of her own nerve force and has a pronounced effect upon the pupils. If the teacher is nervous and impatient, she will induce and maintain a feeling of strain in the whole school, which is exhausting and detrimental to all parties concerned. On the other hand a calm, good-natured teacher will produce a soothing effect, and there will be much less waste of nervous energy.

What is commonly designated as fatigue in school children is quite likely to be nothing of the sort. The symptoms of fatigue may be due, often are due, to lack of interest in the work of the school. *Boredom* or *ennui* would be better terms to apply to the condition in which we often find pupils in the rural as well as in other schools. If the teacher is lacking in personality or uses crude teaching procedures, the children may seem excessively fatigued, when, as a matter of fact, they are bored to spiritual death by the dreadful monotony of the day's work. It is probably true that very few children in the rural school ever suffer from genuine mental fatigue. Commonly the subject matter is unwisely selected and not adapted to the child's mentality and stage of progress. Badly contaminated schoolroom air, where ventilation is practically *nil*, and other poisons generated in the alimentary canal undoubtedly account for much

fatigue. Intestinal stasis is a common cause of that tired feeling in school children.

**After the program is made.** In most rural schools the best way is to place the program on a large sheet of strong manila tag board, about 36"  $\times$  24" in size. This sheet should be posted where all can see it. Some teachers use a chart-printing outfit to make the program, which is usually neat, and easily readable. Other teachers use heavy black marking crayon. It will not be advisable to place the program on the regular blackboard surface for the reason that there is usually no space to spare for this purpose. However, a large sheet of slated cloth can be used over and over again for the program. Moreover, changes can easily be made when such a slated surface is used. The program should be very carefully and neatly done; then it should be securely fastened up in a conspicuous place.

After the program has been made out in the best possible way for the particular school, the next problem is to follow it in an intelligent and sensible fashion. The teacher should adhere to the time schedule with as much precision as the circumstances will warrant, but she must not become the slave of any program. Provision must be made for change and variation to suit the exigencies of the situation — the school, the teacher, the classes. It is possible to have both a methodical, businesslike regularity and a flexibility which allows for extras, substitutions, and alterations.

**The Hoffman program.** The accompanying schedule is taken from a publication issued by the State Department of Illinois, entitled: *Organizing and Teaching a One-Teacher School in Illinois*, by U. J. Hoffman. "It has been tried out," says Miss Lathrop in her Rural School Leaflet No. 10, "under the supervision of the State Department of Education in a number of Illinois schools.

DAILY PROGRAM FOR INDIVIDUAL INSTRUCTION AND DIRECTED STUDY  
ONE-TEACHER SCHOOL

(Using Minimum Alternation — 1922-23)

YEAR'S WORK	COURSE OF STUDY	CLASSES	INDIVIDUAL AND CLASS INSTRUCTION	GRADES	TIME	BEGIN	DIRECTED STUDY
				All	10	9:00	
	255		General exercises	All	10	9:00	Directed study
3	76	Reading	Class instruction	3	10	9:10	
4	96	Reading	when desired	.4	10	9:20	20 min.
5	123	Reading		5-6	10	9:30	
7	178	Reading		7-8	10	9:40	
1	32	Reading		1	10	9:50	Recitation
2	62	Reading		2	10	10:00	40 min.
		Spelling		All	15	10:10	
			Directed play.	All	15	10:25	15
4	108	Arithmetic	Class instruction	4	10	10:40	Directed study
5	137	Arithmetic	when desired	5	10	10:50	
6	160	Arithmetic		6	10	11:00	20 min.
7	193	Arithmetic		7	10	11:10	
8	232	Arithmetic		8	10	11:20	Recitation
1	50	Numbers	Class instruction	1	10	11:30	
2	68	Numbers	daily	2	10	11:40	60 min.
3	86	Arithmetic		3	10	11:50	
		Lunch	Play	All	60	12:00	60
5	134	Language	Class instruction	5	10	1:00	Directed study
6	156	Language	when desired	6	10	1:10	
7	184	Grammar		7	10	1:20	25 min.
8	222	Grammar		8	10	1:30	
7	207	Phys. and civics		7-8	10	1:40	
1	39	Read. and lang.	Class instruction	1	7	1:50	Recitation
2	64	Read. and lang.	daily	2	8	1:57	
3	82	Language		3-4	10	2:05	65 min.
		Writing		All	15	2:15	
			Directed play	All	15	2:30	15
1	71	Reading and const. work	Class instruction	1	7	2:45	Directed study
2	71	Home geography	daily	2	8	2:52	
3	111	Geography		3-4	10	3:00	25 min.
5	141	History	Class instruction	5-6	10	3:10	Recitation
6	167	Geography	when desired	6	10	3:20	
7	197	Geography		7-8	15	3:30	
7	201	History		7-8	15	3:45	50 min.
		Dismissal				4:00	

DAILY PROGRAM FOR A DISTRICT SCHOOL<sup>1</sup>

RECITATION PROGRAM			STUDY PROGRAM						
Time	Subject	First Year	Second Year	Third Year	Fourth Year	Fifth Year	Sixth Year	Seventh Year	Eighth Year
9:00- 9:10	Opening Exercises...	.....	.....	.....	Op. Exercises	.....	.....	.....	.....
9:10- 9:25	Arithmetic 7 and 8.	Reading	Reading	Reading	Reading	Dictionary	Dictionary	*Arithmetic	*Arithmetic
9:25- 9:40	Reading 1	Reading	Reading	Reading	Reading	Reading	Reading	Library	Language and Grammar
9:40- 9:50	Reading 2	Seat Work	Reading	Reading	Reading	Reading	Reading	Library	Language and Grammar
9:50-10:05	Reading and History 3 and 4...	Seat Work	Read MTW History TF	Read MTW History TF	Reading	Reading	Reading	Language and Grammar	Language and Phys. and Hygiene
10:05-10:20	Reading and History 5 and 6...	Recess	Arithmetic	Arithmetic	Read WTF History MT	Read WTF History MT	Read WTF History MT	Language and Grammar	Phys. and Hygiene
10:20-10:35	Physiology and Hygiene	Recess	Arithmetic	Arithmetic	Library	Library	Library	Language and Grammar	Phys. and Hygiene
10:35-10:45	.....	Recess	.....	.....	.....	.....	.....	.....	.....
10:45-10:55	Language and History 1 and 2...	Lang. MTW History TF	Arithmetic	Arithmetic	Arithmetic	Arithmetic	Arithmetic	Language and Grammar	Language and Grammar
10:55-11:10	Language and Grammar, 7 and 8	Reading	Arithmetic	Arithmetic	Arithmetic	Arithmetic	Arithmetic	Language and Grammar	Language and Grammar
11:10-11:25	Arithmetic 3 and 4	Reading	*Arithmetic	*Arithmetic	Arithmetic	Arithmetic	Arithmetic	Civics and History	Civics and History
11:25-11:40	Arithmetic 5 and 6	Recess	Recess	Recess	*Arithmetic	Arithmetic	Arithmetic	Civics and History	Civics and History
11:40-12:00	Civics and History	Recess	Recess	Recess	Geography	Geography	Geography	History, odd even	History, odd even

Morning Exercises: Monday — Music. Memory gags and poems committed. Tuesday — Nature study. Fall and Spring — Civics, Winter and on election days. Wednesday — Hygiene and Sanitation. Thursday — Current Events. Stories. Friday — Biography of great men and women. Humane treatment of animals. Accident prevention.

# DAILY PROGRAM FOR THE RURAL SCHOOL

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12:30-12:30 Dinner.								
12:30- 1:00 Games supervised.								
1:30- 1:10 Reading 1.....	Reading	<i>Arithmetic</i>	<i>Language</i>	<i>Language</i>	<i>Geography</i>	<i>Geography</i>	<i>Reading</i>	<i>Reading</i>
1:10- 1:20 Reading and Arithmetic		*Arithmetic	Language	Language	Geography	Geography	Reading	Reading
1:20- 1:35 Reading 7 and 8...	Reading		Language	Language	Geography	Geography	Reading	Reading
1:35- 1:45 Language and Geography 3 and 4...	Reading		Lang. MTW Geog. TF	Geography	Geography	Geography	Library	Library
1:45- 2:00 Writing (3 times per week).....	Art 2	Art 2	Art 2	Art 2	Art 2	Art 2	Art 2	Art 2
Drawing (2 times per week).....								
2:00- 2:15 Geography 5.....	Writing 3 Recess	Writing 3 Recess	Writing 3 Recess	Writing 3 Recess	Writing 3 Geography	Writing 3 Language	Writing 3 Geography	Writing 3 Library
2:15- 2:30 Geography 6 and 7	Recess	Recess	Recess	Recess	Language	Geography	Geography	Library
2:30- 2:40 .....	.....	.....	.....	.....	.....	.....	.....	.....
2:40- 2:55 Reading 1.....	Reading	Reading	Reading	Reading	Language	Language	Arithmetic	Arithmetic
2:55- 3:05 Reading and Spelling 2.....	Library	Reading and Reading Spelling	Reading	Reading	Language	Language	Arithmetic	Arithmetic
3:05- 3:20 Language and Civics 5 and 6...	Library	Reading	Reading	Reading	Language Civics F	Language Civics F	Agriculture	Agriculture
3:20- 3:35 Reading and Spelling 3 and 4...	Library	Reading and Spelling Library	Reading and Spelling Library	Reading and Spelling Library	Spelling	Spelling	Agriculture	Agriculture
3:35- 3:45 Spelling 5 and 6...	Recess	Recess	Recess	Recess	Spelling	Spelling	Agriculture	Agriculture
3:45- 4:00 Agriculture and Spelling...	Recess	Recess	Recess	Recess	Spelling	Spelling	Ag. 12 weeks Sp. 12 weeks Ag. 12 weeks	Ag. 12 weeks Sp. 12 weeks Ag. 12 weeks

This program shows the study and recitation periods for a school of eight grades. If all grades are not represented more time may be given to each grade but the same general arrangement followed. In every recitation, the pupil has had a chance to prepare his work immediately before he recites. Library reading is provided in school hours for all pupils, and what each pupil is doing every period of the day is clearly shown. The course of study is based upon this program and should be taught as here outlined.

All subject matter in grouped classes is alternated by years.

Music \*-3 for primary grades the first and third Fridays of the month.

Music \*-4 for upper grades the second and fourth Fridays of the month. Music for all grades every Monday in morning exercises.

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In the first column of the program is recorded the year's work which the class is doing; in the second column are given the pages in the Illinois State Course of Study where the work for the year is discussed; in the third column are the subjects; in the fourth column the kind of work done by the teacher — whether individual or class instruction; in the fifth column the grades that are doing the work; in the sixth column the number of minutes allotted to each recitation; and in the last column a suggestion for the division of time between directed study and recitations. The time schedule in the sixth column is adhered to only when every class recites every day in every subject. When some recitations are omitted, the teacher must allot the time as the number of recitations require. If all the time allotted to classes which do not recite is more than is required to give individual help to those classes, more time can be given to the classes which do recite. The pupil's study time is also adjustable. He has the whole period, less the time spent in recitation, to study a subject. If he needs more time for one than for another, he can divide the periods to meet the requirements."

**Comments on Wisconsin program.** *a. Study and recitation periods.* The study program is a very definite part of the scheme, as it should be. Pupils should be given an opportunity to prepare the lessons just preceding the recitation period, whenever possible. By the use of a definite study period pupils will be trained in systematic habits of work. Compare pages 128 and 129.

*b. Grade grouping.* It will be noted that grades three and four, five and six, seven and eight are grouped, respectively, in reading, language, spelling, arithmetic, history, and civics. Geography and civics are completed in the seventh grade. Grades one and two are combined in lan-

guage and history. Grades six and seven are combined in geography.

*c. Recreation periods.* Grades one and two are excused at 10:05 and 11:25 in the forenoon and at 2:00 and 3:35 in the afternoon. Grades three and four are excused at 11:25 in the forenoon and at 2:00 in the afternoon. The recess periods for the primary pupils is thus much longer than for the upper grade children. This is a good thing for the teacher and for the boys and girls of these grades.

*d. Library reading.* Definite provision is made to give abundant opportunity for the children of all the grades to make good use of the books in the library. This is a line of work which every rural teacher should stress. The more good books the pupils read the better for them in many ways. Such reading will have a pronounced influence upon their progress in school.

*e. Provision for experiments and excursions.* The last period of the day is given to the pupils of the two upper grades. Agriculture is offered during the fall months and again in the spring. This last period is a favorable time for objective work of various sorts, when specimens can be studied and experiments performed. If the pupils are studying corn, for example, they may go with the teacher, and perhaps with some or all of the fifth and sixth-grade pupils, to a neighboring farm where they can actually see a farmer select seed corn or test such corn in the spring for viability. It would be possible, according to this program, to leave the school building about three-thirty.

*f. Number of recitations.* Twenty-four recitations are provided for in this program, and no school should ever have more than that number. In smaller schools, where some of the eight grades are lacking, it will be possible to reduce the number of classes to twenty or less. The periods are ten and

fifteen minutes in length with one exception. If possible the teacher should provide for at least a fifteen-minute general exercise period daily and make each recess fifteen minutes in length.

*g. Each grade five periods.* Examine the program carefully; you see that each grade has five periods per day for some sort of so-called recitation work with the teacher. The teacher is not obliged to use each of these five periods for formal recitation work. Many times there will be study-recitation of some supervised-project activities at the individual desks, or other work of varying nature to suit the needs of the pupils.

*h. Adjustment periods.* Retardation is lessened by an adjustment period for backward second-grade pupils. Often some of the second-grade children need first-grade drill exercises; the program is so arranged as to provide for this.

*i. Geography and civics completed in the seventh grade.* Note that no civics or geography class is provided for the eighth grade. In the course of study these subjects are studied in each of the seven grades. If the work is done faithfully, no difficulty will be experienced in completing the course in these two subjects in seven years instead of eight. Under the old régime only the constitutions were taught, solely as an eighth-grade subject.

*j. Alternation of subject matter.* One of the conspicuous advantages which this program is expected to carry out is found in the alternation of all subject matter by years in the grouped classes. For example, in agriculture *weeds* are to be taught in September of the even years and *corn* in September of the odd years. *Potatoes* are taught in the odd years only, and so on with other subject matter. History is not offered as an eighth-grade subject in the eighth grade of the even years, but in the odd years only.

## DAILY PROGRAM FOR THE RURAL SCHOOL 133

TIME	GROUP C (GRADES I, II, III)	GROUP B (GRADES IV, V)	GROUP A (GRADES VI, VII)
9:00-9:45	OPENING EXERCISES FOR ALL, SINGING, STORY, QUOTATIONS, CURRENT EVENTS, ETC.		
9:10-10:45	Socialized Reading	<i>Arith.</i> , 5 min. Drill. 15 min. help and instruction 15 min. desk work	<i>Arith.</i> , 5 min. Drill. 15 min. desk work. 15 min. help and instruction
9:45-10:05	<i>Reading</i> 5 min. help, 5 min. instruction for each class	Grade IV Silent Reading Grade V, Prep. Geog.	Silent Reading
10:05-10:20	Grade I, No. desk work Grades II, III Rev. Spelling	<i>Grade V, Geog.</i> Grade IV, Hist. Stories	Prep. History & Civics
10:20-10:35	RECESS FOR ALL—SUPERVISED PLAY		
10:35-10:45	<i>Gr. I, Oral Reading</i> <i>Gr. II and III</i> No. desk work	Optional	Optional
10:45-11:00	<i>Gr. II and III, Numbers</i>	Prep. Spelling	Prep. Spelling
11:00-11:05	PHYSICAL EDUCATION FOR ALL, WINDOWS OPEN		
11:05-11:30	<i>Spelling</i> 5 min. instruction 10 min. dictation 5 min. sentences 5 min. prep. penmanship	<i>Spelling</i> Sentences <i>Dictation</i> <i>Instruction</i> Correct Group C	<i>Spelling</i> Sentences <i>Dictation</i> Correct Groups A & B <i>Instruction</i>
11:30-11:40	PENMANSHIP FOR ENTIRE SCHOOL		
11:40-12:00	Free Play	Library Period	<i>Hist. Civics and Current Events</i>
12:00-1:00	5 MIN. PREP. FOR LUNCH, 25 MIN. LUNCH, 15 MIN. PUT ROOM IN ORDER, 15 MIN. PLAY		
1:00-1:30	ALTERNATING PERIOD, MON., MUSIC, TUES., ASSEMBLY, ETC.		
1:30-1:50	<i>Gr. II, III, Reading</i> <i>Gr. I, Free Period</i>	<i>Gr. IV, Construction</i> <i>Gr. V, Prep. History</i>	Prep. Geog.
1:50-2:10	Handwork	<i>History and Oral Reading</i>	Prep. Geog. or Construction
2:10-2:30	Sandtable	<i>Gr. V, Construction</i> <i>Gr. IV, Free Period</i>	<i>Geog.</i> (Mon. Hygiene)
2:30-2:45	PHYSICAL EDUCATION, ENTIRE SCHOOL, ON PLAYGROUND		
2:45-3:10	<i>English</i>	Prep. English	Prep. English
3:10-3:35	Dismiss	<i>English</i>	Prep. English
3:35-4:00		Library or Cons.	<i>English</i>
		Household Arts and Manual Training (Friday)	

*k. Supervised play.* The noon hour is divided into two parts of one-half hour each, the first for lunch and the second for play under the teacher's supervision. As a rule, there should be a full-hour's nooning; usually the teacher should play with the children for at least part of the thirty minutes.

**Kent County Program.** The program on page 133 is printed in *Rural School Management*, by Ina G. Barnes, published by The Macmillan Company in 1923. The program has been used in Kent County, Delaware. It is presented here as a plan and a procedure essentially different from the practice in most rural schools. Subjects printed in italics denote recitation periods.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make out a program for a one-room rural school comprising the first six grades only.
2. How can grades three and four be combined in arithmetic? Arrange the topics which must be presented for these two years.
3. In classifying pupils in a rural school what are the modifying conditions which should be taken into account by the teacher? Consider the relative value of native ability, or intelligence, and various attributes of personality.
4. Why would it be unfair and unwise to classify pupils in a rural school entirely on the basis of a single general-intelligence test? What, in your opinion, is the best solution of the classification problem?
5. How can you have supervised study in a rural school where there are twenty-four classes?
6. How can a teacher avoid the feeling of hurry when she must make use of a program with twenty-four class periods?
7. Is a teacher justified in having a half-hour nooning so that she can dismiss at three-thirty? Under what circumstances might a rural teacher be pardoned for having only thirty minutes at noon?
8. Make out your ideal program for a rural school of only twelve pupils, in which grades two, four, six, and eight are lacking.
9. If your predecessor has left no record of the classification of the pupils, what will you do the first morning? How can you have your pupils fairly well classified by the second day?

10. Discuss *pro* and *con* the best time for a pupil to prepare his lesson—right after the teacher has made a good assignment, or just before he is to recite?
11. Why can grades one and two be combined in language and history, and perhaps in arithmetic, but not in reading?
12. How could you adapt the Wisconsin program (pp. 128 and 129) so as to provide for a fifteen-minute recess period in the afternoon, a full fifteen-minute general-exercise period, and still have no class exercise less than fifteen minutes?

#### REFERENCES ON PROGRAM MAKING

1. BARNES, INA G.—*Rural School Management*; The Macmillan Company, 1923.
2. EELLS, H. L., MOELLER, H. C., AND SWAIN, C. C.—*Rural School Management*; Charles Scribner's Sons. 1924.
3. *Illinois State Course of Study*; C. W. Parker Publishing Company, Taylorville, Ill.
4. *Making of School Programs*; State Department of Education, Trenton, New Jersey.
5. *Minnesota Course of Study and Manual for Teachers*; Jones and Kroeger Co., Winona, Minn. Price \$.75.
6. *State Course of Study — Rural Schools of Montana*; Missoulian Publishing Company, Missoula, Mont. Price \$1.25.
7. *Suggestions on the Daily Program in the One-Teacher School — Bulletin of the University of the State of New York*; Albany, N. Y., June, 1921.

In quoting prices the author calls attention to the fact that, though he has consulted the latest available catalogs, prices may change at any time.

## CHAPTER IX

### HEATING AND VENTILATING THE RURAL SCHOOLHOUSE

Let us note first what two authorities have to say on the subject of this chapter :

**Principles of ventilation.** The physiologic necessity for air is obvious, complete lack of it means death in a very short interval of time. This is not simply because the lungs need air; all life processes are dependent upon sufficiency of oxygen; without oxygen to be carried by the hemoglobin of the blood to all parts of the body there can be no metabolism, no cell activity, no removal of wastes.

However, the essential problems of ventilation relate not so much to the regulation of the chemical composition of the air as to control of air in relation to its physical properties.

The principles recognized as the most important at the present time in relation to air and ventilation are as follows :

1. The best schoolroom temperature is from 65° to 68° F. and should never be allowed to go above 68° when the outdoor temperature is below that point. A fluctuating or changing temperature within the limits stated above is preferable to unchanging uniformity.

2. Stagnation of air should be prevented, but air movement should not cause disturbing drafts.

3. Outdoor air possesses exceedingly important health values. Present approved standards of ventilation recommend window or modified window ventilation in order that rooms may be provided directly with outdoor air.

4. Excessively dry or moist atmospheres are less comfortable and may be less favorable to health. However, window or modi-

fied window ventilation renders the artificial control of humidity unnecessary.

5. Air should be as clean and free from obnoxious gases and offending odors as possible.<sup>1</sup>

**Effects of bad air.** The fact that children become uncomfortable, fretful, dull, irritable, and peevish, especially during the last hours of the day, is not always due to mental fatigue. The sympathetic teacher understands that it is rather the result of bad air in the poorly ventilated rural school building. The fresh air in a stove-heated room is exhausted within a half hour after school begins, and from that time on the children and the teacher are living in and breathing air filled with germs that cause colds, pneumonia, and tuberculosis.

The fact is now well established that more loss of life can be traced to bad air than to any other cause of disease. Influenza, pneumonia, and consumption are known as bad air diseases. Consumption alone claims 200,000 victims in our country every year. One out of every seven people, up to the age of thirty years, is afflicted. If there are twenty-one pupils in a school, it is reasonable to assume that three of them have consumption. These three are a constant menace to the health of all the others. No more favorable condition can be found for the spread of bad air diseases than in an unventilated schoolroom.<sup>2</sup>

**Good sense in ventilation.** A rural teacher will not be able to operate the heating and ventilating system successfully unless she is intelligent, alert, and uses good judgment. It will be necessary for her to understand the basic principles which underlie the working of the jacketed stove, for every patented plant, whether in the room itself or in the basement

<sup>1</sup> From *Health Education: A Program for Public Schools and Teacher Training Institutions*. Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association, 1925.

<sup>2</sup> WATERMAN-WATERBURY COMPANY, Minneapolis. Quoted by permission from literature issued by the Company.

below, operates according to the same well-recognized facts and laws. In order that the air in the rural schoolroom may be about right hour by hour it will be needful for the teacher to exercise her stove sense, her temperature sense, and her air sense. It often happens that girls who are graduates of high schools and of rural-teacher training institutions do not possess that practical knowledge and experience which enable them to look after the heating and ventilating of their rooms as it should be done. A teacher who has stove sense understands the construction of a stove, the function of checks and dampers, the need for getting air up through the grate and the fire bed ; she knows how to start a fire quickly and effectively. Her temperature sense is such, if she is alert and watchful, that she will quickly note whether the temperature runs much above or below 68 degrees. *Moreover, she does not trust to her feelings, but habitually and often consults the thermometer.* She does this naturally, with no fuss or trouble. If she lacks the temperature sense, or is careless in such matters, the room will either be too hot or too cold most of the time, and the pupils will suffer. Her air sense makes her conscious of foul air, and she knows that in a room full of children the air very soon gets bad. She occasionally steps to the door, takes a few whiffs of fresh air, and senses the close, stuffy, foul smell when she returns to the room.

By the term *sense* as used here the author means both *knowledge* and the *habit* of sensitiveness or alertness relative to stove, temperature, and air conditions. It is not meant that the teacher should consult her personal feelings ; rather that she have the habit of consulting the thermometer, noting the condition of the fire, whether the fresh and foul air dampers are open, and in other ways knowing and controlling the situation.

The teacher with temperature sense will be vigilant as to

conditions no matter whether she is thin or fleshy, because she is intelligent and has formed the habit. Of course a thin person unquestionably feels cold before a fleshy one, and a plump person warm before a thin one. But neither will rely on feeling alone, if they have the habit of watchfulness. Many rural teachers dress much lighter than the pupils, and this is an important element in the situation. Many children wear too much clothing, and some teachers don't wear enough. In any case, the temperature should be kept not above  $68^{\circ}$ ; it is not difficult for all to become habituated to that temperature.

**Circulation of air—The diagrams.** The purpose of the diagrams is to show the essential parts of the system and to make plain just why and how the air circulates. It should be understood that present practice places the vent flue not far from the fresh-air intake in a corner of the room, in order to secure the most satisfactory circulation of air in the room. Note that there are two separate diagrams, one of the stove and the jacket and [the other of the combined smoke-stack and vent flue. See that the parts of the system are properly assembled in one corner of the room, which is the northwest corner in several states, with the stovepipe, fresh-air intake, and vent-flue properly adjusted, and conditions are established for the system to operate suc-

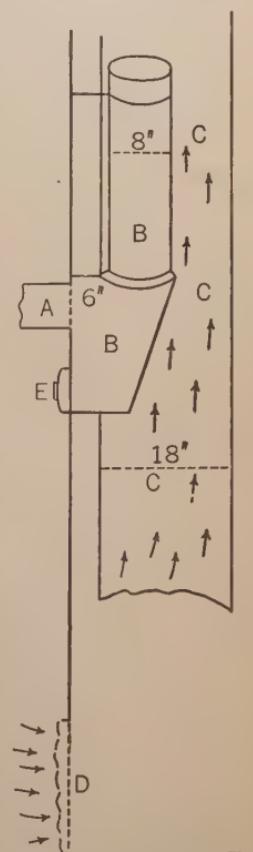


Fig. 1.—Combined smoke stack and vent-flue

- A. Stove-pipe.
- B. Cast iron smoke stack.
- C. Vent-flue.
- D. Wing register.
- E. Soot vent.

cessfully. In many rural schools the smoke flue and the foul-air or vent flue are combined; this will work satisfactorily, providing the brick chimney is large enough and the smoke stack closed tightly at the bottom, so as not to connect with the foul-air duct. When the two open freely into each other the stove will not draw well on certain days, and of course there will be trouble with the soot. In some rural schools a large galvanized iron pipe used as the vent flue extends down to within a foot of the floor and up through ceiling and roof. The warm air of the room heats this foul-air duct, producing a fair circulation of air. If this foul-air vent is heated directly by hot air or hot smoke from the stove, it will work much better; if it is connected directly with the smoke flue, it will act as a damper, preventing a good draft. The diagrams have been drawn to scale so that the relative sizes and proportions of the various parts may be noted. Note the figures giving dimensions. The parts are lettered and named, and the description of them is given in the following section. Send to the Waterman-Waterbury Company, and to the Smith System Heating Company, both of Minneapolis, for their illustrated descriptive literature, which will shed much light on this entire subject of heating and ventilation.

**Jacketed-stove system.** The first item is the stove itself, which is usually round or cylindrical. This stove is now made to burn either wood or coal. It should be equipped with the means for evaporating several gallons of water each day. This means of course that the water must be kept steaming all day, if the air is to be supplied with enough moisture. The stove is provided with a full set of checks and dampers so that the fire can be fully controlled.

Eight inches from the stove a galvanized iron jacket extends above it several inches and down to within about eight

inches of the floor. This jacket is usually lined with asbestos, kept in place by an inner lining of strong tin, thus preventing the jacket from getting too hot.

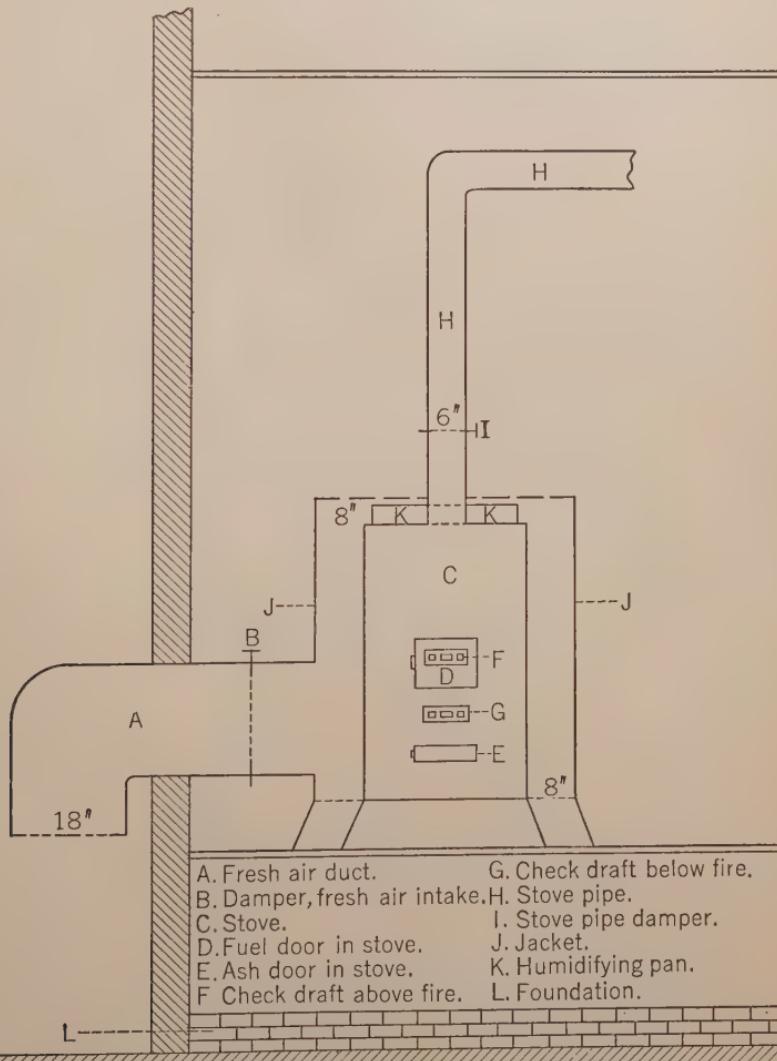


Fig. 2.—Diagram showing construction of the jacketed stove and fresh-air duct.

The fresh-air intake should be not less than eighteen inches in diameter, larger if over thirty pupils are in the school. This, too, is made of galvanized iron, and opens into the space between the jacket and the stove. It is firmly fastened to the jacket so that the joints are air-tight. This fresh-air intake is now usually passed through the side of the building, but sometimes it comes up under the floor and opens into the jacket from below. In the latter case the intake should open some distance above the lower part of the jacket to prevent cold air from blowing over the floor. This fresh-air intake is provided with a tight-fitting damper so that the amount of fresh air admitted can be fully controlled, especially on windy days. As you pass by the rural schoolhouse nowadays you can see this fresh-air intake with the outside opening projecting downward. It is well to have this opening safely covered with a fine wire netting to keep out animals, birds, leaves, or dirt.

When the jacketed stove is installed, whether a homemade one or preferably one of several patented designs now on the market, it is of the utmost importance to see that adequate provision is made for carrying off the smoke and foul air. This will require a chimney with a large inside passage, probably about 18" square — 324 square inches. It will be best for this chimney to extend to the floor so that the foul-air outlet can be set flush with the floor in the side of the chimney. If the chimney does not extend to the floor, but only a few inches or feet below the ceiling, a galvanized iron pipe about eighteen inches in diameter, constituting the vent flue, must tap into the chimney and extend to within about a foot of the floor. The best place for the foul-air duct is within a few feet of the jacket so that the air will circulate as much as possible through the room before passing out of it. Most authorities suggest that in case a brick chimney is

used a cast-iron or tile stack be placed inside of the chimney to carry off the smoke. Cast-iron is better than tile, as the latter is liable to crack and cause trouble. This reaches somewhat below the stovepipe hole, and must be tightly closed at the bottom. It extends to the top of the chimney. The stovepipe connects tightly with this smokestack. The chimney should reach well above the roof of the building in order to secure a good draft, and it should be large enough so that the foul air can easily escape around the sides of the smoke flue. If the chimney extends to the floor, an ordinary register of adequate size — about  $20'' \times 16''$  — must open into it. If the galvanized iron pipe mentioned above is used for the ventilating duct it must have a tightly fitting damper near the floor, and the pipe should be about 18 inches in diameter.

**Installing the system.** It is of vital importance that the apparatus be properly installed if it is to work well. Several plants have been taken out because they would not work. Either they were not put in properly at the start or the teacher failed to operate the system intelligently ; the system itself is not usually at fault. It will be the cheapest in the end to have the job done by some one who knows just how to do it. Sometimes the system fails to work well because there are so many air escapes around the doors and windows. The building must be repaired if good results are to be secured. The commonest cause of trouble is too small a chimney. If the chimney is less than sixteen inches square, a new one should be built, because the chimney is to carry off both the smoke and the foul air. If a suitable jacketed-stove system is properly installed it will both heat and ventilate the room satisfactorily.

**The underlying principles.** When the plant is put in as described above the air will flow in and out of the room as

long as there is a fire, if both ducts are open. The cause for the flow of air is the difference in the weight of the cold and the warm air — hence the name, *gravity system*. By heating the foul-air duct with the hot smoke, a condition of unbalance is set up, and so long as this condition continues the air will circulate. When the foul-air duct is heated, the air particles are pushed farther apart, and, rising, make room for more air to come into the duct. The air around the stove inside of the jacket is hot, and the cold air coming in from outside pushes the warm air up. Or, if both ducts are closed, the air in the room will circulate through the jacket, the cooler air coming in from below and forcing the warm air up.

It is incorrect to say that warm air tends to rise, for the fact is that when some portion of air is warmed, cooler air from the sides and from below pushes the warm air up. Heated air, instead of tending to rise, actually expands in all directions, and naturally near the surface of the earth it cannot expand downward very far. With a good fire in the stove and the ducts open, there is produced a condition of disequilibrium. Cold air is heavier than warm air and tends to sink, pushing the warmer air up.

No such system will work at all unless the foul-air duct is heated or has a volume of warm and rising air in it. It is important to remember that fact. In the spring and fall the system will not give results because there is no fire and hence no hot smoke to heat the foul-air duct. In some large plants the foul-air duct is sometimes heated with a stove placed at the bottom of the flue. This, of course, cannot be done in a rural school. The air in a schoolroom is always much warmer near the ceiling than near the floor, but as the air strikes the walls it becomes cooler and sinks. This relatively fresh air is breathed by the pupils, becomes contaminated, and being cooler than the air above tends to sink towards the floor, and

to find its way to the opening in the foul-air duct. The system does not work well when the doors and windows are open; but the rural teacher should air her room out thoroughly and often, system or no system.

**Starting a fire.** To start a fire quickly and well you must have dry pine kindling and dry wood cut up fine. Insist that your school board furnish these necessary materials. You will be greatly handicapped without them. As many young teachers seem quite unable to do a good job of starting a brisk fire quickly, it seems proper to devote some space to the subject: First, clean out all the ashes; be sure the ash pan is empty. Place some paper, torn and twisted or wadded together, upon the grate. Every rural teacher should have a good stack of old newspapers on hand all of the time. On the paper place enough dry, fine kindling, and on top of this the dry, fine wood. Then place a few of the larger sticks on top of the finer. Now open the damper in the stove pipe and the lower slide check, or even the lower door in the stove. Close the door and the slide damper above the fire. If the flues are clean you will soon have a good fire. Add wood or other fuel from time to time as needed, and look at your fire occasionally. Some persons prefer not to shake all the ashes out of the grate before making the fire, but you will probably get better results as a rule if you clean off the grate thoroughly. This discussion has had reference to a wood fire only. If hard coal is used, all that will be necessary each morning is to thoroughly shake the ashes out of the bed of coals, put on fresh coal, and open up all the drafts. In the case of a wood fire, as the wood continues burning and chunks of dry wood are added, a good bed of live coals will be formed. During cold weather such a bed of coals should cover the grate during the daytime. Whether wood or coal is burned, the air must have free access up through the grate

and burning fuel. The stove, the pipe, and the chimney should be kept clean in order that the draft may be good. Sometimes failure to keep the room warm is due to the accumulation of ashes and soot. The ashes should never be allowed to pile up, as this may result in burning out the grate. If soft coal is used, the wood fire should be well started before coal is put into the stove; otherwise it takes too long to warm the room.

**Manipulation of dampers.** The teacher must understand that opening a slide check below the fire always causes a draft and makes the fire burn. Opening a slide check above the fire, either in the stove door or in the stove pipe, checks the fire. The fire can also be checked by a damper in the stove pipe. When the damper handle is parallel to the stovepipe, the damper permits a draft; and when the handle is at right angles to the stovepipe, the draft is checked. In the morning when starting the fire of course all the draft possible should be given; it is usually better to open the lower door of the stove to give plenty of draft. There should also be a good damper both in the fresh- and foul-air ducts. If the chimney extends to the floor, instead of a damper there will be a wing register, which can be adjusted to any desired angle. On windy days when the wind comes from the side on which the fresh-air intake enters the building, the damper in this fresh-air pipe should be partly closed.

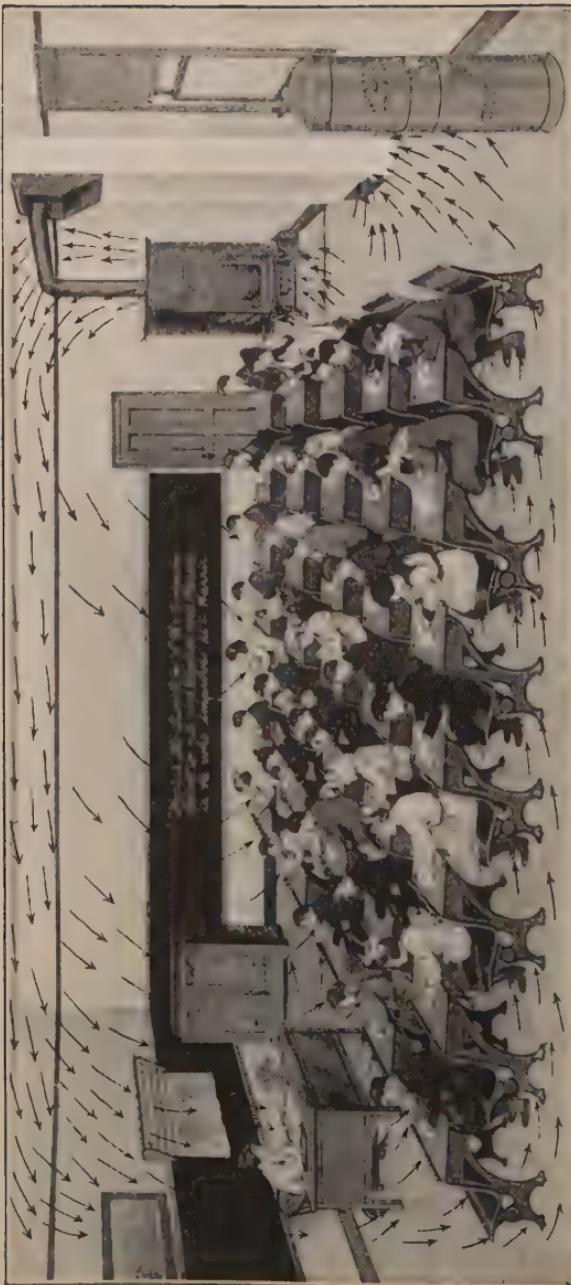
**Window ventilation.** No matter whether there is a heating and ventilating system or not, every window in a rural school building should open freely both at top and bottom, and there should be suitable catches so that the windows can be left open for longer or shorter periods and to such an extent as the teacher may determine. It needs to be clearly understood, however, that if there is an adequate jacketed-stove arrangement the system will not operate properly with

currents of air coming in and going out of the windows. Nevertheless, there is nothing to prevent the windows being opened wide at noon and at the two recesses while the children are out-of-doors. They should always be shut in time so that the room is comfortably warm when the children come in to take their seats.

When there is no ventilating system, as is probably the case in most rural schoolhouses, the teacher will need to use window ventilation a great deal, but every effort must be made to prevent drafts of cold air from blowing directly on the pupils. No doubt foul air is deadly enough, but drafts are positively dangerous, and teachers must look out for them. Every window can easily be fitted with a six-inch pine board, planed and painted ; this board should be as long as the width of the window. On cold, windy days it will be sufficient to set the board in so that all the space is closed, permitting air to come in between sashes only. But, on milder days, on the windless side of the building, the boards can be set at an angle, thus permitting more air to enter. There are now on the market sanitary cloth window ventilators, from nine to fifteen inches wide, capable of being adjusted to windows of varying width. These are made of fine-mesh, strong cloth and should last a long time. They are the means of supplying fresh air without drafts or dust and are useful where a constant circulation of fresh air is needed, which is the case in all rural schoolhouses not provided with a ventilating system. The price of each ventilator is from 50¢ to 75¢, depending on the width ; one for each window would be desirable.

It is possible to have a thin board about six inches wide attached to the upper sash in such a way that the current of air will be deflected toward the ceiling when the window is open a few inches, preventing the cold air from dropping upon the children's heads. This strip of board must equal the

*Courtesy of Smith System Heating Company, Minneapolis*



#### A well-ventilated schoolroom

Note location of heater and its relation to foul-air vent, insuring complete circulation of air.

width of the window in length ; it can either be adjusted by means of a cord and a pulley, or it can be fitted with spring hinges so as to operate automatically. But no matter whether the teacher has boards both at the top and bottom or not, the room should be thoroughly aired out whenever necessary ; this means three or four times during the day. In every rural school there should be a window committee to open and close the windows under the teacher's direction.

**The need for moisture.** In most rural schoolhouses in the cold winter months the air is very dry, the relative humidity getting as low as 25%. Breathing such air does a great deal of injury to children. "The harm done to school children by dry air is very grave, for the dry, cracked tissues of the nose, mouth, and throat form excellent lodging places for germs, and are thus much more liable to disease than tissues which are kept normally moist." The relative humidity out-of-doors on a cold, damp January day may be as high as 85%, but when this air is heated in the schoolroom its volume is so increased that the relative humidity is greatly reduced. If no means are taken to introduce moisture into such schoolroom air, it becomes as dry as Sahara. Connected with every good system at the present time is found a good-sized humidifier, which should be kept well filled with water all day. Several gallons should be evaporated. Remember that heating air tends to dry it just as heat dries anything else.

**Recent investigations and conclusions.** Teachers, school officers, and others who are especially interested in this subject of heating and ventilating, should read the article in Dr. Winship's *Journal of Education* (Boston) for August 13, 1925, pp. 96, 97, and 98. The most voluminous report of recent investigations relating to the subject of ventilation may be studied in the findings of the New York State

Commission on Ventilation. This Commission, which may be addressed at Albany, N. Y., has recently published a most important book on the subject of ventilation in school buildings.

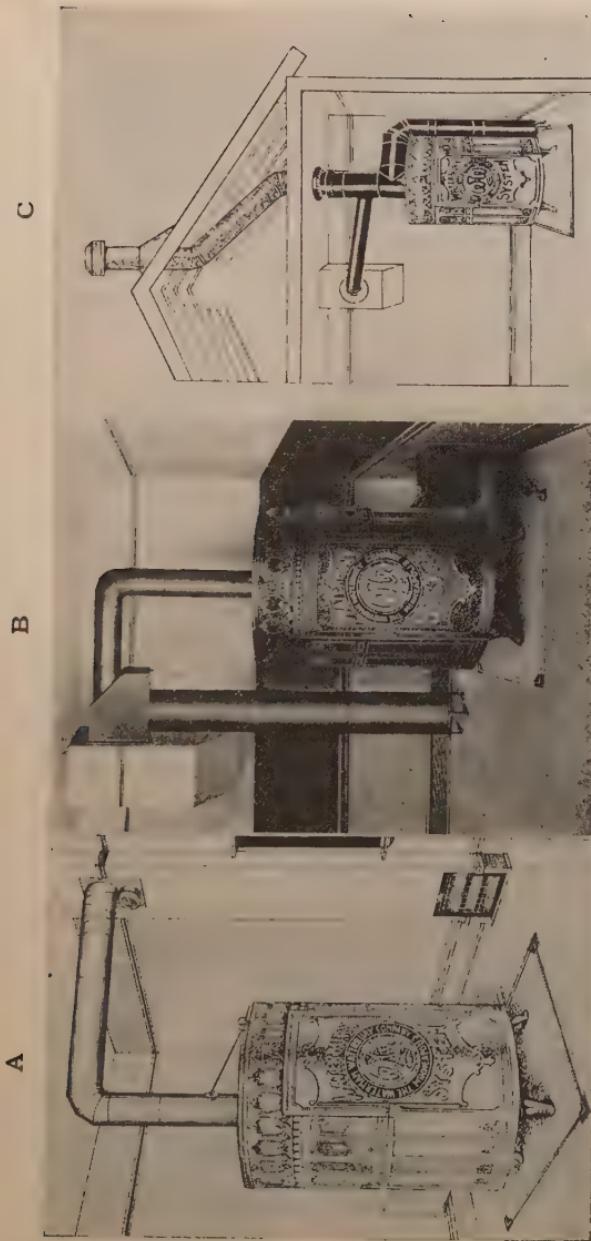
For some years the Subcommittee on Ventilation of the Joint Committee on Health Problems of the National Education Association and the American Medical Association has made a study of heating and air conditions in schoolrooms, in the hope of finding a method which could be recommended to educational systems. Although specific instances of successful ventilation through simple, direct ways of admitting air were convincing to the members of the Committee, they wished to gather together sufficient evidence to warrant a recommendation of the general application of the method. The Committee feels that it is now in a position to make such a recommendation.<sup>1</sup>

Teachers should write to the National Education Association, Washington, D. C., or to The American Medical Association, 535 N. Dearborn St., Chicago, Ill., for instructive information. A letter addressed to Dr. Thomas D. Wood, 525 West 120th St., New York City, who is Chairman of the Joint Committee of the National Education and the American Medical Associations will also secure valuable material relative to the sanitation of rural school buildings. The Smith System Heating Company and the Waterman-Waterbury Company, both of Minneapolis, Minn., will send free descriptive literature which is very informing. Many times useful bulletins and pamphlets can be secured from state departments of education, from state boards of health, and from state industrial commissions.

Some of the conclusions of the various experts on the committees and commissions, who have been studying this problem for several years, may be summarized as follows:

<sup>1</sup> WINSHIP, A. E. — Journal of Education, August 13, 1925, Boston.

Three types of installation



**A.** In new building where an adequate chimney extends to floor. **B.** In old building where chimney is adequate but does not extend to floor. **C.** In old building where chimney can carry off smoke only.

1. The evident evil effects of vitiated air do not seem to be solely dependent upon the absence of oxygen or the presence of carbon dioxide, as is commonly believed, and as usually stated in textbooks.
2. Overheating, too much moisture or humidity, and dead air not in motion, are found to be the most conspicuous causes of the bad physiologic effects upon human beings.
3. Overheating is especially prominent in causing disturbances of circulation and producing infections of the respiratory system. Even slight excess of temperature tends to produce conditions favorable to disease.
4. Ventilation through windows, when combined with some system of simple gravity exhaust, produces good results. In fact, this system is found to be the best of all from the standpoint of health.
5. It has not been found that stale air produces harmful results providing it is kept in circulation. Such air, however, contains too much moisture, which is a problem as well as too little moisture.
6. The Commission found that a cooler room, with less air movement than is produced by fan ventilation, is more comfortable and more healthful. Fan ventilation involves too high a temperature. Overheating characteristic of fan ventilation is detrimental to health; this is an exceedingly common condition in public buildings of all kinds.
7. A temperature of  $65^{\circ}$  with slight movement of air is better than a temperature of  $70^{\circ}$  with considerable movement of air.
8. In using window ventilation associated with gravity-exhaust ducts, it is suggested that a large thermometer with a danger signal pointed at  $68^{\circ}$  should occupy a prominent place for the teacher's constant use.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make a detailed and logical outline of this chapter so that you can tell the story yourself.
2. Make a neat diagram of the jacketed-stove system, label the parts, and explain how it works.

3. Why should the jacket not extend down to the floor?

4. Explain exactly why the foul-air duct must be heated. Draw a diagram showing the air particles near together and separated. How is the foul-air duct heated?

5. Draw a diagram showing the necessary arrangement when the brick chimney does not extend to the ground.

6. Draw a diagram to show the cast-iron stack mentioned in the description of the system. Why must it be tightly closed at the bottom? Indicate a place in your diagram for taking out soot.

7. Why is the jacketed-stove arrangement called the *gravity* system? Explain fully. What is the *vacuum* system, and how does it differ from the gravity system? Why is a vacuum system impossible in a rural school? What is a *plenum* system? Look up *plenum* in the dictionary. How may both the vacuum and the plenum systems be used together?

8. Discuss *pro* and *con*: The foul- and the fresh-air ducts should be closed at night and left closed until about nine o'clock the next morning.

9. State the underlying principles upon which the successful operation of a heating and ventilating system is based.

10. What produces the condition of unbalance or disequilibrium in the room which sets up a circulation of the air? Compare to a bonfire, in which the air currents are about like this:

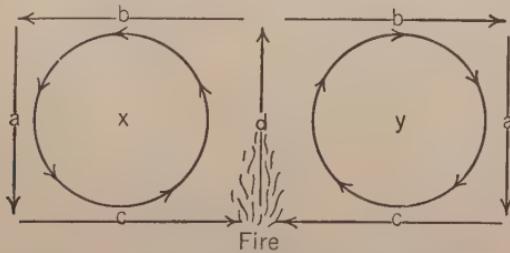


Fig. 3.—Air currents by an open fire

11. Tell exactly how you would have some of your older boys work out the window board project. Compute the cost of fitting good boards into the bottoms of six windows.

## CHAPTER X

### THE HEALTH OF THE PUPIL

THERE can be no more significant field of study and effort than that which pertains to the health of the growing boy and girl. Many children are now suffering from various diseases, weaknesses, and defects which are entirely unnecessary and which could readily be cured or greatly modified if only enough wisdom and altruism could be brought to bear upon the problem. The needful scientific facts are now available for all who will use them. The greatest need is to get the proper information to parents, teachers, and children, and then to get all concerned to act before action is too late. Sickness and bodily deficiencies interfere greatly with the work of the school and with the happiness, efficiency, and progress of individual children. Touching the child's health there should be the greatest coöperation between teacher, parent, and public health nurse. This is a field of rich possibilities where even small efforts pay large dividends. There is still much ignorance and superstition both in town and country districts relative to ways of living, sickness, and cure of disease. The light of scientific knowledge is needed to save our boys and girls to lives of effective, happy service in the world. It is the duty of the intelligent, enlightened teacher to take the initiative ; in so doing she will be rendering as great a service as in any of her teaching activities. Not a day should go by in a rural school in which the teacher fails to instruct, train, and inspire the children to more healthful living. Vigorous health is the greatest single asset

in our life on this planet. What a travesty on Christian education if the child grows up weak, instead of strong; the physical is the essential basis for the mental and the moral.

**Defects of rural children.** Children in rural schools are not different from boys and girls in town schools, but urban children are now receiving much more attention in the matter of health. This is clearly not a square deal; as the health of growing children is a subject of national concern, the very success of our democracy, as well as the welfare of the individual, demands that this subject be given continued and increased attention. The eyes, ears, and teeth of children in country schools are often defective. There is blurring of vision, near- and farsightedness, and astigmatism. There, for example, was the twelve-year old boy, so deaf that he could not hear ordinary conversation, whose eyes were so weak that he was obliged to hold his book within a few inches of his face. Notwithstanding his condition neither teacher nor parents had done anything about it, although the defects had existed for several years. In the same school a little eight-year-old girl had been unable to walk one morning. A paralysis of some sort affected her legs so that she was at least temporarily crippled. What was the cause? All bodily defects have a cause which it is the duty of teacher, parents, and county nurse to get at, if possible, with the aid of a scientific physician. Sometimes we find a child with running ears, a very serious condition, and it is common to find partial deafness due to infections from colds.

Many rural pupils suffer from toothache; their teeth have never received the attention of a dentist. Some parents think that it doesn't matter about children's first teeth — a very great error. Malnutrition is exceedingly common even where food is abundant, and pale, weak, anaemic children are to be seen practically in every rural school. Because of ill-fitting

seats and desks, and for other reasons, spinal curvature, resulting in life-long troubles unless corrected, is all too common. Diseased tonsils and adenoids are sure to be found if teacher and nurse make the proper examination. Every intelligent teacher now knows the disastrous effects of neglected tonsils or adenoids. Children often complain of headaches day after day — headaches due to nervousness, to the absorption of poisons, and to improper diet. Nervous troubles are often present, but they are not so easy to detect. Speech defects prevail in nearly every good-sized school. Last, but by no means least, is the dread tuberculosis, which often gains headway without the knowledge of parent or teacher, who should be posted on the early danger signals and secure a medical examination before it is too late.

**Correction of defects.** No rural teacher is doing her duty unless she makes a complete health survey of her school through the examination of individual children. She can find books which will tell her exactly how to do this; the county health nurse or some good physician will aid her. The health of pupils is the first and most important concern of every rural teacher. The first month should not go by without finding out the chief physical defects of each child. This information should be set down on cards for future reference. Take school time to find out about eyes, ears, adenoids, and all else. The teacher will need to secure the coöperation of parents in certain cases, when possible. Many parents are woefully negligent in such matters; the teacher must use a great deal of tact, common sense, and caution. Many children will need to be taken to a good, conscientious doctor, perhaps to an ear, eye, and nose and throat specialist, and to a dentist. Try your best to see that the child gets the services of an expert before it is too late. It often happens that wrong personal habits and wrong home

practices are at the bottom of the trouble. Some children will improve if they sleep longer and with their windows wide open. Some need to drink several glasses of milk every day, and some are not eating enough good food. Others are eating too much of sweets, such as candy, cake, pie, and cookies. Many a child will improve in health if his teeth are put in good condition. It has often happened that a child's whole outlook upon life has changed when his eyes have been fitted to a suitable pair of glasses; the tragedy is that so many children live on year after year suffering unduly and unnecessarily.

**The need for a public-health nurse.** Personal observation convinces one of the very great value of a public-health nurse. No public worker anywhere is doing more for the welfare of our people than the skillful and honest public-health nurse. She works with teachers, doctors, parents, county superintendents, and county-normal faculties in ways that are productive of the greatest good. It is impossible to list all of the duties and services of such a worker, but it is safe to say that she earns her salary many times over in carrying out the following activities:<sup>1</sup>

1. She visits schools, where she discovers the sanitary conditions existing there.
2. She instructs teachers concerning contagious diseases, signs of disease, examination of children, and other matters.
3. She visits homes and advises the mothers concerning the care of their children.
4. She recommends to parents that cases of defect receive proper medical or dental care.
5. She instructs teachers and pupils in simple rules of hygiene,

<sup>1</sup> These various functions of the public-health nurse were listed in a circular issued some years ago by the Wisconsin State Board of Health, and are here printed by permission.

conducting tooth-brush drills, and in other ways making practical demonstration of correct procedures.

6. She reports conditions to school boards concerning water supply, heating, ventilation, toilets, and general cleanliness.

7. She weighs children to discover indications of malnutrition.

8. She inspects school children often for diseased teeth, defective eyes, defective hearing, adenoids, enlarged tonsils, other diseases of nose and throat, pediculosis, ringworm, impetigo, and to find symptoms which indicate chronic ailments.

9. She calls attention of teachers and parents to the value of the hot lunch, supervised play, and other health-giving measures which can be adapted to school use.

10. She discovers early signs of scarlet fever, diphtheria, whooping cough, measles, mumps, and other contagious and infectious diseases.

11. She arranges to exclude the suspected child from school pending examination and diagnosis by a physician.

12. She assists in the care of the sick, both by bedside nursing service and by instructing members of the family in methods of caring for the invalid.

13. In tuberculosis, typhoid fever, or other contagious or infectious diseases, she instructs the members of the family how to protect themselves from the disease and to prevent its spread.

14. She assists in finding sources of disease or conditions which contribute to illness. Many cases of typhoid in one district may thus be traced to one common source, a contaminated well or a careless human carrier.

15. She assists in organizing clean-up days, fly campaigns, and baby-week programs in small towns and in district centers.

16. She organizes the making of local surveys along lines directly affecting health interests, and plans exhibits by which facts thus obtained may be presented to the public in a manner quickly grasped and easily understood.

17. She helps to promote Parent-Teachers Associations and other movements for establishing a closer relationship between the home and the school.

18. She coöperates with health officers and with physicians in every possible way and secures their coöperation in providing for whatever treatment of individual cases may be necessary when such cases are unable to pay the usual fee for such service.

19. She coöperates with the county superintendent, local school boards, and teachers in securing better schools and better schooling for the boys and girls.

The public health nurse is the logical consequence of a recognition of the health rights of the country school child, even before the great World War called attention to the value of health and the costliness of neglecting minor physical defects during childhood. When the draft came, its startling revelations proved that one-third of the young men between twenty-one and thirty-one years of age were physically unfit for military services. *This physical unfitness was, in the large majority of cases, due to minor defects which might have been corrected easily had they been discovered in childhood.*

**Tests of hearing and sight.<sup>1</sup>** *Test of hearing.* If it is possible, one person should make the examination for an entire school in order to insure an even method. The person selected should be one who has normal hearing.

The examination should be made with the whispered voice; the child should repeat what he hears, and the distance at which words can be heard distinctly should be noted. The two ears should be tested separately. The test should consist of numbers, 1 to 100, and short sentences. To avoid imitation, it is best that but one pupil at a time be allowed in the room.

For very young children a fair idea of the hearing may be obtained by picking out the backward or inattentive pupils and those that seem to watch the teacher's lips, placing them with their backs to the examiner, and asking them to perform some unusual movement of the hand, or other acts.

*Test of sight.* The eyes of children who wear glasses should be tested with the glasses, and if found normal should be so recorded.

<sup>1</sup> These tests appear in "Health Essentials for Rural School Children," published jointly by the National Education Association and the American Medical Association. See bibliography at end of chapter.

Hang the Snellen test letters in a good clear light (side light preferred) on a level with the head, and so placed that the child does not face a strong light. Place the child twenty feet from the letters. Cover one eye with a card held firmly against the nose, without pressing on the covered eye, and have him read aloud, from left to right, the smallest letters he can see on the card. Make a record of the result.

Children who have not learned their letters obviously cannot be given this eyesight test until after they have learned them. Pupils who cannot read may, however, be tested by charts with pictures of familiar objects designed for this purpose.

**To record the acuteness of vision.** There is a number over each line of the test letters which shows the distance in feet at which these letters should be read by a normal eye. From top to bottom the lines on the card are numbered respectively 50, 40, 30, and 20. At a distance of 20 feet the average normal eye should read the letters on the 20-foot line; if this is done correctly, or with a mistake of one or two letters, the vision may be noted as 20/20, or normal. In this fraction the numerator is the distance in feet at which the letters are read, and the denominator is the number over the smallest line of letters read. If the smallest letters read at 20 feet should normally be read on the 30-foot line, the vision will be noted as 20/30; if the letters on the 40-foot line are the smallest that can be read at 20 feet, the record will be 20/40. If the letters on the 50-foot line are the smallest that can be read at 20 feet, the record will be 20/50.

If the child cannot see the largest letters (those on the 50-foot line), have him approach slowly until the distance is found from which they can be seen. If 5 is the nearest distance from which the 50-foot letters can be read, the record will be 5/50 (1/10 of normal).

Test the second eye, the first being covered with the card, and note the result as before. With the second eye have the child read the letters from right to left, to avoid memorizing. To prevent reading from memory, a hole  $1\frac{1}{2}$ " square may be cut in a piece of cardboard, which may be held against the test letters

so as to show only one letter at a time and moved about so as to show the letters in irregular order. An error of two letters on the 20- or 30-foot line and of one letter on the 40- or 50-foot line may be allowed.

Parents should be notified if : 1 — Vision in either eye is 20/40 or less. 2 — The child habitually holds his head too near the book — less than 12 inches. 3 — The child frequently complains of headache, especially in the latter portion of the school hours. 4 — Either eye deviates even temporarily from normal position.

**Suspicious symptoms.** Keep the following children at home away from other children : 1 — The child with a cold. 2 — The child with a rash. 3 — The child with a fever. 4 — The child with a cough. 5 — The child with a swelling of the face. 6 — The child with a sore throat. 7 — The child who fails to eat breakfast because he does not feel well. 8 — The child who is nauseated, dizzy, or faint. 9 — The child with weeping eyes. 10 — The child with red eyes. 11 — The child from a quarantined home.

Dr. Thomas D. Wood<sup>1</sup> states that the following indications of health disorders, in addition to those listed above, should cause parents and teachers to coöperate to keep children at home. These signs should be used by teachers as a basis for excluding pupils from school for the day, or until such signs have disappeared : 1 — Chill, convulsions (fits). 2 — Dizziness, faintness, or unusual pallor (alarming pallor of the face). 3 — Running nose. 4 — Inflamed throat. 5 — Acutely swollen glands. 6 — Any distinct or disturbing change from usual appearance or conduct of child.

Many rural teachers are very negligent and fail to take note of the signs of disease. They should be instructed and trained to be intelligent and watchful.

**Schoolroom air.** The air in many, if not in most, rural

<sup>1</sup> *Health Essentials for Rural School Children.*

schools is so hot, dry, and laden with germs as to be a veritable breeding place for all sorts of children's diseases, particularly those of a respiratory nature. This is especially the situation during the winter months when the ventilation is bad in most schools. Most rural teachers fail to regulate the temperature, and they do not open all the doors and windows at all intermissions, as every teacher should do as a matter of habit. During the winter months the room thermometer may register all the way from 70° to 80°, and the air becomes close, foul, and odorous. Some means should be used in every rural school to get more water into the air. It will help thoroughly to air out the room every hour, but in addition to that there should be a large shallow pan of water steaming all day. The pan can be set on the stove in most schools.

One of the most useful expedients is to appoint a temperature committee of one or two pupils and a window committee, one pupil for each window. The temperature committee will record the temperature each hour and also regulate the stove and ventilating system. The window committee will promptly open all the windows at the appointed times, and close them when the room is filled with fresh air. Until the teacher becomes convinced of the ever-present need for oxygen and the disastrous effects of impure air in producing headaches, restlessness, sluggishness, drowsiness, inattention, disturbed circulation, and general bodily and mental discomfort and weakness, she will be careless and negligent. Many lifelong weaknesses and diseases, catarrh, and even tuberculosis itself are due directly to bad air in rural schoolhouses.

**Keeping clean.** Rural teachers will agree that many rural children are often anything but clean, though this is also often true of children in urban communities. Some rural teachers, themselves, may need a few lessons in personal

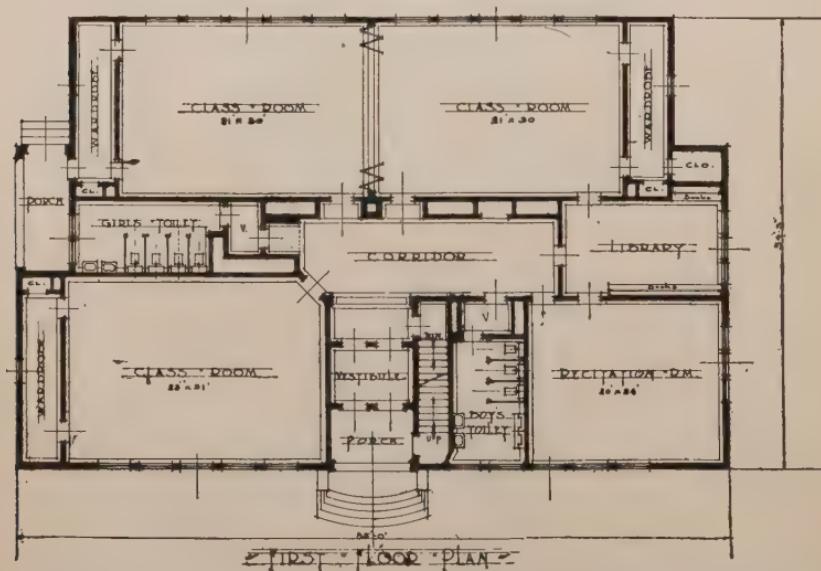


A COMMUNITY SCHOOL.  
TEACHERAGE BUILDING  
PROPERTY OF THE STATE OF MICHIGAN.

Courtesy of E. H. Berg, Architect, Escanaba, Mich.

Consolidated school and teacherage

cleanliness. Keep in mind not simply exterior cleanliness, but a clean body inside and out, a skin that is active, a generally clean condition which is the result of frequently repeated doses of hot, soft water and plenty of pure soap. There is not enough faith in the efficacy of baths and bathing in too many homes. No person can be really healthy whose skin is not functioning properly, and no skin can do its duty unless



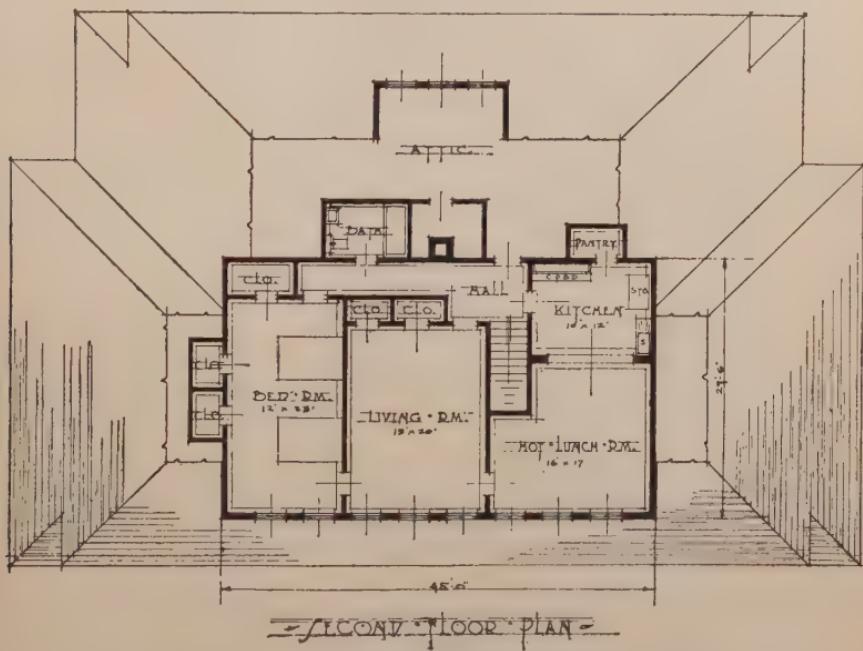
*Courtesy of E. H. Berg, Architect, Eveleth, Minn.*

Community school—school-floor plan

it is washed and rubbed frequently. One of the most valuable lessons a teacher can inculcate is the lesson of real, honest cleanliness, not the make-believe affair which often prevails. Every child should have a good soaking bath at least once a week, and, better, twice. If the skin of the whole body could be thoroughly rubbed each night or morning it would be a great aid to health.

A teacher can do much to have children keep their hands

and faces clean and their hair combed, at least for the noon-day meal. Every rural school needs to be equipped with several good-sized wash basins and a constant supply of paper towels. The water for washing should be warmed on the oil stove. Train all the children to wash their hands with warm water and soap before eating. The teeth of many of the pupils are in foul condition. Tooth-brush drills are then



*Courtesy of E. H. Berg, Architect, Eveleth, Minn.*

**Community school — plan of teachers' rooms**

in order. In all this business of cleanliness the teacher needs kindly, discreetly, but persistently to teach the right ideas, and then, by her own personal example, to inspire the boys and girls with right ideals, so that cleanliness will become a fixed habit. Wrong thinking and wrong practices at home may account for a large part of the problem, but a teacher is

**X. CONTAGIOUS**  
**VITAL INFORMATION CONCERNING THE PREVEN-**  
**Especially Prepared by the Bureau**  
**WISCONSIN STATE**  
**For Public Health Nurses,**

This chart is intended solely as a suggestive guide in the prevention and control of some of the pamphlet entitled, "The Prevention and Control of Communicable

DISEASES	EARLY SIGNS AND SYMPTOMS	INCUBATION PERIODS	PERIOD OF COMMUNICABILITY
Chicken Pox	Usually occurs in children under 12 years of age. Onset usually gradual with mild fever. Fever symptoms may be lacking.  The rash appears on the second day as small raised pimples which shortly become filled with clear fluid. Later scabs form. There may be successive crops of this rash, more marked on the trunk, up to the tenth day of the disease.	14 to 21 days	While scabs are present on mucous membranes and skin.
	The onset may be gradual or rapid. The early signs are those of fever and sore throat with grayish-white patches on the throat, palate or tonsils or continuous croupy cough.  The glands of the neck near the angle of the jaw may be swollen. Later there may be profound prostration.  Mild cases may be mistaken for ordinary sore throat.	2 to 5 days	While virulent organisms are present in secretions.
German Measles	The malady is usually mild. The rash may be the first sign noticed.  Ordinarily there are a few signs of "cold in the head" as there are in measles. The eyes may be inflamed, while slight fever and slight sore throat may accompany the attack.  Usually resemble mild measles or mild scarlet fever.  Ordinarily appears in epidemics.	10 to 21 days	Eight days from onset.
Influenza (Epidemic)	The onset is abrupt, with fever, chills, pain in the head, back and limbs as well as "a cold in the head." Lassitude or profound depression are characteristic symptoms.	2 to 5 days	Unknown. Probably until four days after temperature is normal.

**SCABIES OR ITCH**

An infectious eruption found most frequently on palm of hand and between fingers. The usual treatment is to wash affected parts thoroughly with warm water and soap and then anoint with a diluted sulphur ointment. Child should be kept separated until cured. Sleep alone. All clothing should be thoroughly cleaned and underclothing and bed linen should be boiled for one-half hour. Quite contagious, especially to others in same family. Exclude child until eruption has entirely disappeared.

## DISEASES<sup>1</sup>

### TION AND CONTROL OF COMMUNICABLE DISEASES

#### of Communicable Diseases

#### BOARD OF HEALTH

#### Teachers, and Parents

municable diseases. Those desiring more complete information should request a copy "Diseases," published by the State Board of Health, Madison, Wisconsin.

RULES FOR SCHOOL ATTENDANCE	SPECIAL FEATURES
<p>Sick child cannot attend school. Two weeks' placarding required at home. Well children from infected home may attend school.</p>	<p>A mild disease with few after-effects, but readily transmitted.</p>
<p>Sick child must be excluded from school until two negative cultures, taken not less than 24 hours apart, are obtained from the nose and throat. Clinical cases conforming to this rule may be released in 10 days and carriers in five days. Children remaining in infected home may be released after quarantine is lifted, one negative culture and freedom from disease. Exposed children living in other homes may be released after one negative culture and freedom from disease. Release cultures are taken by or under the direction of the local health officer, at the expense of the town, village, or city.</p>	<p>A very serious disease varying greatly in its forms and frequently escaping detection. Mild cases should be particularly sought after as they are fully as infectious as the more apparent ones. All children from 6 months to 10 or 12 years of age should be immunized against diphtheria by injections of toxin-antitoxin. This causes permanent immunity to 90 per cent. This should not be confused with antitoxin which is for treatment and immediate immunization after exposure. Daily inspection of children for fever, sore throat or croupy cough is recommended during the prevalence of the disease. Tests may reveal mild cases and carriers. The same person may have several attacks of diphtheria.</p>
Same as for measles.	<p>Precautions should not be neglected. May be confused with mild cases of measles or scarlet fever.</p>
<p>Sick child cannot attend school until 4 days after temperature becomes normal and abnormal manifestations have disappeared. Well children from infected homes cannot attend school until temperature of last patient in home has been normal for four days.</p>	<p>An exceedingly infectious malady frequently followed by serious after-effects. The patient should be kept in the recumbent position until 4 days after the temperature has become normal or longer if necessary.</p>

#### PEDICULOSIS OR HEAD LICE

Light gray insects. Lay eggs or "nits" in the hair especially at the nap of the neck and about the ears. Symptoms are irritation and itching of the scalp.

The treatment of this condition is accomplished by thorough application, to the scalp and hair, of a mixture of equal parts of olive or sweet oil and kerosene. The next day the hair should be thoroughly washed with vinegar to remove the nits or ova of the louse. If by chance all the nits or ova are not removed by the first application the treatment should be repeated.

## X. CONTAGIOUS

### VITAL INFORMATION CONCERNING THE PREVEN-

DISEASES	EARLY SIGNS AND SYMPTOMS	INCUBATION PERIODS	PERIODS OF COMMUNICABILITY
Measles	Begins like a " cold in the head " with running nose, watery, inflamed eyes, sneezing, and fever. The rash consisting of small, irregular groups of dull-red, slightly raised spots, appears about the third day. The rash is usually first seen on the forehead and face, spreading rapidly over the entire body.	7 to 18 days Usually 14 days	During period of catarrhal symptoms and while there are abnormal mucous membrane secretions.
Mumps	The onset may be sudden or gradual, with slight fever, nausea, pain and swelling about the angle of the jaw.	4 to 25 days Usually 18 days	Two weeks after onset and one week after disappearance of swelling.
Scarlet Fever	<p>The onset is usually sudden. Vomiting, sore throat, headache or fever may be early symptoms. In the beginning of the disease the eyes are not watery or congested as in measles. Sore throat is the most characteristic symptom.</p> <p>The rash usually appears within 24 hours upon the neck and upper part of the chest and later extending to the limbs. It appears as fine bright-red and evenly diffused spots.</p> <p>Later the skin peels in scales, flakes or large pieces. In the early stages the red papillæ of the tongue may show through the white coating and is known as " strawberry tongue."</p>	2 to 7 days Usually 3 or 4 days	At least four weeks from onset and while there are abnormal discharges or open sores.
Smallpox	The onset is apt to be sudden, with nausea, fever, headache and backache which may last three or four days. The rash appears after a decline in temperature and is usually first noticed about the wrists and face. It consists first of small red spots, which quickly become elevated and hard like shot to the feel.	12 to 21 days Usually 14 days	From first symptoms to disappearance of all scabs and crusts.
Whooping Cough	Symptoms are a cold, sneezing, coughing. This fails to ameliorate and after a variable period of a few days to two weeks the characteristic whoop may begin.	Within 14 days	During catarrhal stages and while characteristic whoop is present

### EXCLUSION FROM SCHOOL

Teachers should send home at once any pupil with a severe cough, a severe cold, itch, lice or other vermin or any contagious skin disease; also children who are filthy in body or clothing or who have any dangerous contagious or infectious disease. [See rule 17. Sanitary care of schools.]

## DISEASES (*Continued*)

### TION AND CONTROL OF COMMUNICABLE DISEASES

#### RULES FOR SCHOOL ATTENDANCE

#### SPECIAL FEATURES

Sick child cannot attend school. Children from infected home who have had measles may attend school. Well children from infected homes who have not had measles cannot attend school for 14 days from last exposure, dating such exposure from the beginning of the rash in last case in household. When measles is present in a community all children with the slightest indication of a cold or watery eyes should be excluded from school until recovery.	A malady which is infectious even before the rash appears. Complications such as bronchopneumonia, middle ear disease, weakness of the eyes and even tuberculosis may ensue. The after-effects are much more serious than the disease itself. The diagnosis can often be made early by detecting the Koplik spots.
Sick child cannot attend school until 2 weeks after onset of disease and 1 week after disappearance of swelling. Well children from infected homes may attend school after effective isolation of patient.	Because of the infectiousness of the disease attempts should be made to observe early symptoms and exclude immediately persons showing symptoms.
Sick child must be excluded from school for at least six weeks and until membranes are normal and desquamation and discharges have ceased. All other children in family may return to school upon removal of quarantine and freedom from disease. Children in a family with a case of scarlet fever may be removed to a separate building after disinfection of their person and clothing and must be kept in isolation for a period of ten days or until the symptoms of scarlet fever develop. In case the patient is sent to hospital, well children must remain at home for 10 days.	When the disease is present a daily inspection of the school children should be made for the purpose of detecting early cases. Sore throat, fever, or feeling of illness should be deemed sufficient for the exclusion of a child from school until recovery. The disease is dangerous both during and after the attack. Complications are frequent. A certain percentage of cases of scarlet fever do not have a distinct rash. Quite an additional number of cases have only a slight rash on some parts of the body, the rash disappearing within a few hours. The failure to recognize these obscure cases is undoubtedly responsible for the occurrence of many additional cases. The sore throat is often the most conspicuous symptom of these mild cases.
Sick child cannot attend school or leave home until all crusts or scales have fallen off. Exposed children who are vaccinated immediately may return to school at once and live in the infected home but must not come in contact with the patient. No well person can leave infected home without written permit from local health officer.	Section 40.71 of the Statutes. Upon the occurrence of smallpox in a school district it becomes incumbent upon the local board of health to prohibit the attendance at school of children and teachers for a period of 14 days unless they can produce evidence of a recent or successful vaccination. Vaccination is a well-nigh perfect preventive against smallpox and entire dependence should be placed upon this measure in combating smallpox.
Sick child must be excluded from school at least 6 weeks after onset and while in whooping stage. Well children from same home may attend school, but must be excluded upon slightest sign of cold or cough.	Whooping cough is especially infectious during its early stages. The disease is particularly fatal to children under 5 years of age and may cause prolonged debility at all ages. Heart disease is one of the most usual after-effects.

#### IMPETIGO "CONTAGIOUS SORE"

Sores which soon form loose scales and crusts. Appear on face and sometimes hands — pea or finger nail size — may be one or several. The usual treatment is to apply some antiseptic ointment. Child should use separate towels. Very contagious, especially in the spring. Exclude child until sores have disappeared.

always obliged to take children as they are sent to her, from all sorts of homes.

**The lighting problem.** Poor lighting is the rule in country schoolhouses, especially during the dark days of winter. There is usually not enough window space. Divide your floor area by your glass area. The quotient should not be more than six. Usually, however, the result will be eight, nine, ten, or more. Many teachers are careless and allow the windows to be covered by curtains, in part at least, when such covering is not needed to shut out the direct rays of the sun. The following suggestions are made as the result of actual observation and experience :

1. Watch the constantly changing conditions during the day in the matter of admission and control of light.
2. Keep shades rolled to the top of the window unless the sun shines directly into the room.
3. When the sun's rays enter the room directly, draw the curtain to shut out the bright light. Raise the shade as soon as the position of the sun will permit.
4. Keep the curtains on the north side of the room rolled to the top of the window all of the time, all day long. Don't touch them during the day.
5. Adjust the shades on the east side of the room in the morning. Then, as soon as possible, when the glaring rays will permit, raise the curtains to the top and leave them so the rest of the day.
6. Do not think you need to keep the upper half of the windows shaded in order to have them look well. This is an inexcusable practice which should not be tolerated in a rural school.
7. Cover completely the windows which your pupils must face all day.
8. If the roller spring becomes loose you can tighten it by pulling the curtain down full length, taking the roller out of the bracket, and then rolling the curtain up and replacing in the fixtures. Some take the roller out of the bracket, release the dog with a fork or

hammer claw, and then twist the spring until tight enough. The first method is best.

9. Do not let a curtain remain in a state of disrepair. Either fix it yourself or get some one to do so at once. You may need to take the curtain to town. Often the spring is broken and a new roller will be needed.

10. Get some good quality of curtain cord; then place a new clean cord of good length on each curtain. To be obliged to stand on a chair to adjust curtains is evidence of bad housekeeping.

11. A teacher may be directly responsible for serious injury to the eyes of pupils through carelessness, ignorance, or neglect in the matter of lighting; no teacher wishes to be accused of criminal negligence.

12. Strong, white duck is suitable material for window shades. This should be mounted on adjustable fixtures so that light can be admitted at the top or bottom as desired. Write to the Oliver C. Steele Mfg. Co., or the Luther O. Draper Co., both of Spiceland, Ind., and ask for their illustrated, descriptive literature. There is other good curtain material, also. See Chapter VII on The School Beautiful.

**Undernourished children.** Dr. Terman, in his interesting and instructive book, *The Hygiene of the School Child*,<sup>1</sup> suggests questions, the answers to which will guide in identifying the poorly nourished child:

Is there pallor of skin? Is the child extremely thin? Are there furrows between the ribs? Is the flesh soft and flabby? Is there puffiness under the eyes? Is the posture slouchy? Does the child appear to lack nervous energy? Does the child prefer quiet games or books to boisterous play? Is the child listless? Is the mentality slow? Is the appetite freaky (lack of appetite, preference for highly seasoned foods, etc.)? Are there symptoms of nervousness? Does the child have frequent headaches? Is

<sup>1</sup> TERMAN, L. M.—*The Hygiene of the School Child*; Houghton Mifflin Company.

physical endurance good? Does the child take cold easily? Is there shortness of breath? Is sleep disturbed? Are there indications of earlier rickets (bowlegs, knock-knees, pigeon breast, spinal curvature, badly decayed teeth, etc.)? Are the neck glands enlarged?

Of course no undernourished child can do his school work effectively and happily. He is laboring under a handicap which makes the work difficult for him and for his teacher. Pale, anaemic children are to be found in nearly all schools; usually the undernutrition is due not so much to lack of food as to ignorance of parents which permits the child to eat improper foods day after day — too much pastry, too many sweets, and not enough good rich milk, fresh eggs, fruits, and vegetables. Every rural child should have a good nourishing breakfast before going to school; he should have a keen appetite for such a breakfast. The rural teacher can do much to teach children about kinds and quantities of foods.

**Checking-up.—Useful information.** The rural teacher needs some means which she can use several times during the year to discover vital facts about a child's condition and habits, in order to ascertain if any gains are being made and to determine remedial measures in individual cases. The following thirty questions, arranged in miscellaneous order, will assist the teacher in getting at some of the most essential facts. First set down the name, age, and grade of the child, and the date. (1) Do you sleep with your window wide open every night? (2) When do you usually go to bed and when do you get up? (3) Do you sleep well or do you wake up a good deal? (4) Do you always eat a good breakfast? (5) What do you usually have for breakfast? (6) Do you drink coffee or tea? If so, how much? (7) What contagious diseases have you had? (8) Have you ever been vac-

cinated? (9) Have you ever been injected with antitoxin for diphtheria? (10) Do you have the toothache? (11) When were you taken to the dentist last? What did the dentist do? (12) Are you hungry for dinner? (13) What do you usually eat for dinner? For supper? (14) Do you eat much candy, cakes, cookies, and the like? (15) Have you a good tooth brush, and do you use it every day? (16) How often do you take a good hot bath with plenty of water and soap? (17) Have you ever been troubled with earache? (18) Did your ears ever run, and if so for how long? (19) Can you hear well? (20) Do your eyes ever bother you? How? (21) When you read does the print sometimes look blurry or hazy? (22) Does your head ever ache and feel hot and dull? (23) Do you have sore throat very much? (24) Do you feel like working in school or not? (25) Do you like to play out of doors? (26) How much water do you drink with your meals and during the day? (27) Do you work at home? How much, and at what kind of work? (28) Can you hear readily what the teacher and children say in school? (29) Can you easily read what is on the blackboard from your seat? (30) When did you go to the doctor last?

In addition to these answers, which the teacher must, of course, secure with a great deal of tact and discretion, it will be of value for her to note on the pupil's health card some of the following facts, also, some of which are cited, too, in *The Classroom Teacher*, by Strayer and Englehardt.<sup>1</sup> (1) Does the pupil have difficulty in respiration? (2) Has the pupil speech impediment? (3) Is this child sick often? (4) Does the pupil appear healthy? (5) Has the pupil cleanly habits? (6) Is the child's head free from vermin? (7) Is the child's tongue coated? (8) Is the child active or

<sup>1</sup> STRAYER, G. D. and ENGELHARDT, N. L.—*The Classroom Teacher*; American Book Company.

sluggish? (9) Does this pupil wear glasses? (10) Does the child show any such eye defects as redness or watering of the eyes, squinting, frowning, cross eyes, holding book too near, miscalling well-known words, and the like? (11) Has the pupil good teeth? (12) Are his hands and face clean? (13) Are his clothes neat and clean? (14) Does the child have a handkerchief, and does he use it?

**Ten golden rules.** The following ten golden rules of health for school children are taken from that most excellent twenty-page bulletin, *Health Essentials for Rural School Children*, which can be secured from The American Medical Association for ten cents:

1. Play hard and fair — be loyal to your team mates and generous to your opponents.
2. Eat slowly. Do not eat between meals. Chew food thoroughly. Never drink water when there is food in the mouth. Drink water several times during the day.
3. Brush your teeth at least once a day. Rinse your mouth out well with water after each meal.
4. Be sure that your bowels move at least once a day.
5. Keep clean — body, clothes, and mind: Wash your hands always before eating. Take a warm bath with soap once or twice a week, a cool sponge (or shower) bath each morning before breakfast, and rub your body to a glow with a rough towel.
6. Try to keep your companions, especially young children, away from those who have contagious diseases.
7. Use your handkerchief to cover a sneeze or cough, and try to avoid coughing, sneezing, or blowing your nose in front of others.
8. Study hard — and in study, work, or play, do your best.
9. Sleep: Get as many hours in bed each night as this table indicates for your age. Keep windows in bedroom well open.
10. Be cheerful, and do your best to keep your school and your home clean and attractive, and to make the world a better place to live in.

*Hours of Sleep for Different Ages*

AGE	HOURS OF SLEEP
5 to 6	13
6 to 8	12
8 to 10	11½
10 to 12	11
12 to 14	10½
14 to 16	10
16 to 18	9½

**Posture and health — seats and desks.** It is exceedingly common to find children in rural schools with curved spines, flat chests, round shoulders, and stooping postures. These conditions are usually entirely unnecessary, and the rural teacher who is awake to the importance of such matters will take measures to overcome the bad physical conditions. She will see that no child sits in a seat with feet dangling in the air. She will note if the child must stoop at his desk when writing. If so, the writing surface is too low. Of course adjustable seats and desks are the best kind if the teacher provides that each child has an individual adjustment for his special benefit. Seats and desks of one particular size or number should be in one row; otherwise the seat and the desk will not coördinate. Every rural school should have daily light gymnastics or setting up exercises in the aisles. There are some good Victrola records to use for this purpose. Ask your dealer about this.

**Children's teeth.** The great Dr. Osler once wrote: "If I were asked to say whether more physical deterioration was produced by alcohol or by defective teeth, I should unhesitatingly say defective teeth. In some schools as many as 98 per cent of pupils have defective teeth. From 50 to 75 per cent of all school children in this country need at this moment dental care." — In the "Health Essentials" bulletin eleven

direct effects of defective teeth are listed, as follows, in condensed form: Weakening pain, foul breath, improper mastication, extension of decay, decay of temporary teeth resulting in unsound permanent teeth, infection of glands, infection of jaws, earache and deafness, headache, eye troubles, digestive disturbance, poor nutrition and lessened resistance, a breeding place for disease germs, general affections of heart



The county nurse in action

and other vital organs, the accompaniment of defective hearing, lowered vitality and temporary or permanent ill health.

For the care of the teeth the following eight points are summarized from the bulletin: (1) A dentist's occasional and personal daily care are of great importance. (2) Most decay of the teeth can be prevented by daily brushing and by having a dentist clean and look after them every few months. (3) Toothbrush instruction and drills at school are among

the most effective forms of health teaching. Children should be taught how to use their brushes and how to care for them. (4) Children should be taught how to use dental floss to remove decaying food from between the teeth. (5) Lime water is the best mouth wash for children. To make lime water put one-half cup of finely powdered unslaked lime in a quart bottle of water. Allow it to stand twenty-four hours; then pour off the clear liquid into a bottle for use as mouth wash. This powder may be used for successive solutions until entirely dissolved.

Dr. Terman<sup>1</sup> notes the following indications of dental defects: unclean-looking teeth, unsound-looking teeth, unhealthy-looking gums, gumboils, crooked teeth, prominent teeth, offensive breath, toothache, admission of never having been treated by a dentist, neglect of daily use of toothbrush, headache, enlarged lymph glands in neck.

**Adenoids and tonsils.** The following statements are taken from an informing and helpful folder put out by the Metropolitan Life Insurance Company.<sup>2</sup>

### *Is Your Child Handicapped?*

Does your child's nose run or is it sore? Does the child snuffle?

Are the eyes red? Are there fever sores or eczema around the nose and mouth?

Does the child seem dull? Does it stand and look at you with open mouth?

Does it put its hands to its head as though it had earache?  
Does it take cold easily?

Does the child sleep with its mouth open? Does it snore?

If the answer to any of these is *yes*, ask the doctor if the child has adenoids or large tonsils.

<sup>1</sup> TERMAN, L. M. — *The Hygiene of the School Child*; Houghton Mifflin Company.

<sup>2</sup> Published by permission of the Company.

*Tonsils.* Tonsils often become diseased and stick out into the throat. Sometimes they do not get any larger but become diseased and contain little cups filled with infection. These diseased tonsils often hold poisonous germs which may cause throat trouble or may be carried to other parts of the body and cause sickness.

*Adenoids.* Adenoids look like a little head of cauliflower, colored red. They grow in the back part of the throat where the nose and throat join, and can be seen only by the doctor with a special mirror. They stop up the nose and make the child breathe through its mouth. When the child breathes through the mouth, much dust and many germs get into the body. Adenoids should always be removed.

*Earache.* Earache often means that the child has adenoids. Earache always means that the child is in danger of getting deaf. Also, the child is in danger of getting a running ear, and there is danger of the disease reaching the brain. A running ear should always be treated by an ear doctor, it will not get well without good care.

*Enlarged glands.* Often poison gathers in the nose, throat, or ears. The glands of the neck try to carry this poison away. This overwork makes the glands enlarge and lumps often form.

*Other diseases.* Diseased tonsils and adenoids hold poisonous germs which frequently are carried to other parts of the body and cause sickness. Rheumatism and heart disease often come in this way. These germs also cause stomach, bowel, or lung diseases. A child with adenoids and diseased tonsils can get diphtheria, scarlet fever, measles, and whooping cough very easily. Such a child will have the disease worse than a child who has had adenoids and diseased tonsils removed.

*Stupid children.* Often children who seem stupid and who do not learn rapidly can be made healthy and normal by the removal of diseased tonsils and adenoids. It is wrong to blame children for backwardness when they cannot hear, see, or smell properly or are suffering from pains from diseased tonsils or adenoids.

*Have them removed.* Adenoids and diseased tonsils can be removed at any time of the year. Don't wait, thinking they will

get better. It is dangerous. The child may lose its hearing if you put it off. Watch carefully for the danger signals — mouth breathing and earache. Always go to a good doctor at once.

**The square deal.** Dr. Terman<sup>1</sup> states that the following types of children are sometimes injured by the work of the school or by unfavorable school conditions :

1. Children who are poorly fed
2. Anæmic children
3. Those with chronic indigestion
4. Children with a tendency to constipation
5. Children with tubercular tendencies
6. Children with obstructed nasal breathing
7. Children whose muscular development is weak
8. Children whose vision is defective
9. Children with much outside work to do
10. Children of unusual talent in some line. (Talent crushed by pressure of other work)
11. Children of general mental superiority. (Held back by the lock step of the school)
12. Normal children whose development is merely belated
13. Children of subnormal mental development. (Disheartened by failure and repetition of work)
14. Nervous children, including :
  - a. those with tendency to chorea
  - b. those who stutter
  - c. those who suffer disturbed sleep
  - d. those subject to headaches
  - e. those who are abnormally timid
  - f. those who are oversensitive to praise or blame
  - g. those of neurasthenic tendency
  - h. the morbidly precocious
  - i. children who are overimaginative and need the corrective furnished by contact with *things* rather than with *books*.

<sup>1</sup> L. M. TERMAN — *op. cit.*

**The great value of milk.** One is surprised at the number of country boys and girls who drink little or no milk. Every effort should be made to encourage growing boys and girls to drink several glasses of good, rich milk every day. The addition of suitable quantities of milk to the diet of an undernourished, underweight child will often solve the physical problem in the course of a few months. With opportunity to observe the effects of liberal quantities of milk upon school children, the evidence is very convincing. One pale, anaemic boy in the second grade was so weak that he could not climb the stairs to the school he was supposed to attend. He was placed in a room on the ground floor and given good milk in the middle of each half-day session. In three months his entire appearance was changed; instead of being weak and listless, he ran and played as a normal child.

**Need for sleep.** Keeping late hours is oftentimes responsible for underweight, nervousness, fatigue, and irritability. According to Dr. L. E. Holt, vice-president of the American Child Health Association, the American child is kept on a starvation ration of sleep. He claims that this lack of sufficient sleep is a great menace to the growth and development of the present generation of growing children. Dr. Langley Porter, of the University of California, claims that sleep is more essential to the nutrition and well-being of children than food, no matter what the age, because the nervous system of the child is especially sensitive, delicate, and vulnerable. A little overuse, some slight change in diet, or loss of sleep may bring about nervous unbalance. Such nervous unbalance accounts for many children being unable to accept and digest certain food. Then the child may develop malnutrition and become underweight. Dr. Porter says that without long hours of unbroken slumber it is impossible for a child to be healthy during its younger years, just as it is impossible for it to grow up with the kind of nervous system that insures full efficiency in later life. The average school

child would be much better off to sleep from eight to ten hours every night in the week.<sup>1</sup>

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Enumerate several matters to which the rural teacher should give attention each day if she is to do her duty by the children in the way of health.
2. Cite cases of good work done by a public health nurse within your own observation. Prepare a talk for a mothers' meeting giving the advantages of such a nurse.
3. Test the hearing and the vision of your pupils, as directed by this chapter, and record the results neatly on filing cards. Get the county nurse to assist you, if necessary.
4. Where can you buy paper towels, and how much will they cost? In using them what directions do the children need? Tell, also, how to make paper cups.
5. How much will a good three-burner Perfection oil stove cost you? Of what use is such a stove in a rural school?
6. Have your higher arithmetic class get the area of your floor and your window surface. Then compute your lighting ratio. Is it adequate? If not, what kind of curtains have you, and how are they kept adjusted during the day?
7. Why is white, strong duck good material for shades? See chapter on The School Beautiful. Figure the cost of a complete set of new curtains for your schoolroom.
8. What premonitory symptoms of children's contagious diseases are common? What will you do when you note these symptoms? Can you use a clinical thermometer?
9. Post a large chart pertaining to children's communicable diseases, and then instruct your pupils relative to symptoms and periods of incubation. Prepare a list of a dozen good questions based on this chart.
10. Write to Colgate and Company, New York City, or some other company, for samples of tooth paste. If possible, see that each child has a toothbrush and teach him how to use it. Note advertisements in *Normal Instructor*, *Primary Education*, and other school journals. Write for some of this free material.
11. Make out a chart indicating a healthful daily mode of life for your

<sup>1</sup> Used by permission of *The Pathfinder*, Washington, D. C.

pupils. Include all important matters such as food, care of body, bathing, and sleep.

#### REFERENCES FOR THE TEACHER'S READING AND STUDY

1. AMERICAN RED CROSS—*Red Cross Instruction in Home Hygiene and Care of the Sick for Girl Scouts*; American Red Cross, Washington, D. C., 1922.
2. AMERICAN RED CROSS—*Text Book on First Aid*; American Red Cross, Washington, D. C.
3. ANDRESS, J. M.—*The Teaching of Hygiene in the Grades*; Houghton Mifflin Co., Boston, 1918.
4. DANSDILL, THERESA—*Health Training in Schools*; National Tuberculosis Association, 370 Seventh Avenue, New York City, 1923. \$1.00.
5. *Health Education and the Preparation of Teachers*. Report of Lake Mohonk Conference, 1922. American Child Health Association, 370 Seventh Avenue, New York City, 1922.
6. HOEFER, CAROLYN—*Methods of Health Instruction in the Elementary School*; Elizabeth McCormick Memorial Fund, Chicago, 1922.
7. NATIONAL CHILD HEALTH COUNCIL—*School Health Studies No. 1, "Health for School Children," Section I*. Bureau of Education, Washington, D. C. 10 cents.
8. PAYNE, E. GEORGE—*Education in Health*; Lyons and Carnahan, New York, 1921. \$1.25.
9. *Report of International Health Education Conference of the World Conference on Education*, auspices of the National Education Association, San Francisco, 1923. Published by American Child Health Association, 370 Seventh Ave., New York City. \$1.00.
10. WOOD, THOMAS D., AND REESOR, M.—*Health Instruction in the Elementary School*; Teachers College Record, 1912, Columbia University, New York.

#### I. COURSES OF STUDY

1. *Course of Study in Health Instruction in Elementary Schools*—Public Schools, Detroit, Mich., 1923. 60 cents.
2. *Course of Study in Hygiene*—State Department of Education, Columbus, Ohio, 1921.
3. *Course of Study in School Health*—State Department of Public Instruction, Harrisburg, Pa., 1923.

4. *Graded Course in Health Training and Instruction* — Elementary and Junior High Schools, Washington, D. C., 1922.
5. *Little Mothers' League* — Description of Organization and Equipment and Twenty Lessons. The Child Federation, Philadelphia, Pa., 1919. 15 cents.
6. *Six Safety Lessons* — Highway Education Board, Willard Building, Washington, D. C. 10 cents.

## II. TEXTS FOR PUPILS

1. GULICK, LUTHER HALSEY — *The Gulick Hygiene Series*; Ginn and Co.
2. HAVILAND, MARY L. — *Haviland Health Series*; J. B. Lippincott Co., Philadelphia, Pa., 1922.
3. HUTCHINSON, WOODS — *The Woods Hutchinson Health Series*; Houghton Mifflin Co., New York, 1922.
4. O'SHEA, M. V., AND KELLOGG, J. H. — *The Health Series of Physiology and Hygiene*; The Macmillan Company. Revised Edition, 1924-25.
5. RITCHIE, G. W., AND CALDWELL, G. L. — *Hygiene Series*; World Book Co., Yonkers, New York. Revised Editions, 1923 and 1924.
6. ROSE, MARY SWARTZ — *Food Lessons for Nutrition Classes*; Teachers College, Columbia University, New York City. 15 cents.
7. WINSLOW, C. E. A., AND HALLOCK, GRACE T. — *The Winslow Health Series*; Charles E. Merrill Co., New York and Chicago.

## III. SUPPLEMENTARY READING — LOWER PRIMARY GRADES

1. BOOTHE, STELLA, AND CARTER, OLIVE I. — *Mary Gay Stories*; World Book Co., Yonkers, N. Y. 60 cents.
2. BROADHURST, JEAN — *All Through the Day the Mother Goose Way*; J. B. Lippincott Co., Philadelphia, 1921. 75 cents.
3. GRIFFITH, E. G. — *Cho-Cho and the Health Fairy*; The Macmillan Company, New York.
4. PETERSON, MRS. F. — *Child's Health Alphabet*; The Macmillan Company. New York. \$.12
5. PETERSON, MRS. F. — *Rhymes of Cho-Cho's Grandma*; The Macmillan Company, New York. \$.20

## IV. SUPPLEMENTARY READING — FOURTH GRADE AND ABOVE

1. ANDRESS, J. MACE, AND ANDRESS, ANNIE TURNER — *A Journey to Health Land*; Ginn and Co., Boston, 1924. (For third or fourth grade.)

2. ANDRESS, J. MACE — *The Boys and Girls of Wake-up Town*; Ginn and Co., Boston, 1924. (For fourth or fifth grade.)
3. FERGUSON, H. W. — *A Child's Book of the Teeth*; World Book Co., Yonkers, N. Y., 1919. 44 cents. 63 pp.
4. *Keep Well Stories for Little Folks*; J. B. Lippincott Co., Philadelphia.
5. ANDRESS, J. M., ANDRESS, A. T. — *The Story of Rosy Cheeks and Strong Heart*; The Macmillan Company, New York.
6. TURNER, C. E. — *Record of Health Habits*; D. C. Heath and Co., Boston, New York, and Chicago, 1922. 30 cents. 28 pp.

#### V. ORGANIZATIONS FROM WHICH HEALTH EDUCATION MATERIAL MAY BE OBTAINED

1. AMERICAN CHILD HEALTH ASSOCIATION, 370 Seventh Avenue, New York City. Supplies the most complete variety of materials for health education; plays, readings, weight charts and records, games, pamphlets for the teachers, etc. Send for list of publications.

2. BUREAU OF EDUCATION, DEPARTMENT OF THE INTERIOR, WASHINGTON, D. C. HEALTH EDUCATION SERIES

*Classroom Weight Record.* Single copy, 5 cents; additional copies, 1 cent each.

No. 1. *Wanted—Teachers to Enlist for Health Service.* Single copy, 5 cents; additional copies, 1 cent each.

No. 2. *Diet for the School Child.* Single copy, 5 cents; additional copies, 2 cents each.

No. 3. *Summer Health and Play School.* Single copy, 5 cents; additional copies, 2 cents each.

No. 4. *Teaching Health.* Single copy, 5 cents; additional copies, 2 cents each.

No. 5. *Child Health Program for Parent-Teacher Associations and Women's Clubs.* Single copy, 5 cents; additional copies, 3 cents each.

No. 6. *Further Steps in Teaching Health.* Single copy, 5 cents; additional copies, 3 cents each.

No. 7. *The Lunch Hour at School.* Single copy, 5 cents; additional copies, 4 cents each.

No. 8. *Health Training for Teachers.* Single copy, 5 cents; additional copies, 2 cents each.

No. 9. *Your Opportunity in the Schools.* Single copy, 5 cents; additional copies, 2 cents each.

No. 10. *Suggestions for a Program for Health Teaching in the Elementary Schools.* Single copy, 10 cents; additional copies, 6 cents each.

No. 11. *Milk and Our School Children.* Single copy, 5 cents; additional copies, 2 cents each.

No. 12. *Sleep.* Single copy, 5 cents; additional copies, 2 cents each.

No. 13. *Dramatics for Health Teaching.* Single copy, 5 cents; additional copies, 2 cents each.

No. 14. *Health and the Kindergarten.* Single copy, 5 cents; additional copies, 3 cents each.

No. 16. *The Continuing Need for Teachers of Child Health.* Single copy, 5 cents; additional copies, 2 cents each.

#### *Posters*

No. 4. *Weight-Height-Age Tables for Boys and Girls.* Single copy, 5 cents; additional copies, 1 cent each.

No. 5. *Sleep.* Single copy, 5 cents; additional copies, 2 cents each.

#### *School Health Studies*

No. 1. *Health for School Children.* A Report of the Advisory Committee of the National Child Health Council. Single copy, 10 cents; additional copies, 7 cents each.

No. 2. *The Child Health School in the School of Education in the University of Chicago, 1920.* Single copy, 10 cents; additional copies, 7 cents each.

No. 3. *Who's Who in Healthland.* A report on methods used to stimulate the acquisition of health habits in the public schools of Newton, Mass. Single copy, 10 cents; additional copies, 5 cents each.

No. 4. *Growing Health Children.* A study of health supervision in the Trenton, N. J., schools. Single copy, 5 cents; additional copies, 3 cents each.

No. 5. *Health Promotion in a Continuation School.* (Fall River, Mass.)

3. JOINT COMMITTEE ON HEALTH PROBLEMS IN EDUCATION OF THE NATIONAL EDUCATION ASSOCIATION AND THE AMERICAN MEDICAL ASSOCIATION.

1. *Minimum Health Requirements for Rural Schools.* 10 cents each; \$5.00 per hundred.

2. *Health Essentials for Rural School Children.* 15 cents each; \$8.00 per hundred.

3. *The Illustrated Health Chart Report*, showing miniature reproduction of all the charts, 25 cents each; \$15.00 per hundred.

4. *Health Improvement in Rural Schools*. 25 cents each; \$15.00 per hundred.

5. *Health Service in City Schools*. 25 cents each; \$15.00 per hundred.

6. *Health Education*. A Program for Public Schools and Teacher Training Institutions. \$1.00. Discounts on quantity orders.

Charts and Reports may be ordered by addressing the chairman, Dr. Thomas D. Wood, 525 West 120th St., New York City, or the National Education Association, 1201 16th St., N. W., Washington, D. C.

#### 4. NATIONAL TUBERCULOSIS ASSOCIATION

370 Seventh Avenue, New York. Supplies for Modern Health Crusade, Health Plays, Posters, Charts, etc.; *Health Teaching in Schools, A Manual for Teachers*, informational material. Write for list of publications.

#### VI. OTHER ORGANIZATIONS FROM WHICH INFORMATION, CHARTS, PAMPHLETS, SLIDES, ETC., MAY BE OBTAINED

1. American Medical Association, 535 N. Dearborn St., Chicago, Ill.

2. American Red Cross, Washington, D. C.

3. American Social Hygiene Association, 370 Seventh Ave., New York City.

4. Boy Scouts of America, 200 Fifth Ave., New York City.

5. Camp Fire Girls, 527 Fifth Ave., New York City.

6. Elizabeth McCormick Memorial Fund, 848 N. Dearborn St., Chicago, Ill.

7. Metropolitan Life Insurance Company, New York City. Posters, charts, and booklets on health. Free.

8. National Child Welfare Association, 70 Fifth Ave., New York City. Send for booklet listing their charts, posters, and other publications.

9. National Dairy Council, 910 South Michigan Ave., Chicago, Ill. Send for pamphlet, *Educational Material*, which lists all the materials available from this organization — posters, films, slides, booklets, leaflets, folders, health plays, etc.

10. National Congress of Mothers and Parent-Teachers' Associations, 1201 16th St., N. W., Washington, D. C.

11. Playground and Recreation Association of America, 1 Madison Ave., New York City.

12. The Rockefeller Foundation, 61 Broadway, New York City.
13. The Russell Sage Foundation, New York City.
14. State Boards of Health.
15. State Tuberculosis Associations.
16. Superintendent of Documents, Washington, D. C. Price list of government publications on health.
17. United States Public Health Service, Washington, D. C.
18. United States Bureau of Education, Washington, D. C.

#### VII. SOURCES FROM WHICH MOTION PICTURES FOR HEALTH EDUCATION MAY BE OBTAINED

1. American Motion Picture Service. (Distributed by Community Picture Company.) 50 Church St., New York City.
2. The Bray Production, Inc., 130 West 46th St., New York City.
3. Community Motion Picture Company, 46 West 24th St., New York City.
4. National Non-Theatrical Motion Pictures, 232 West 38th St., New York City.
5. Rockefeller Foundation, 61 Broadway, New York.
6. Society for Visual Education, 220 West 42d St., New York City, or 806 West Washington Blvd., Chicago.
7. State Boards of Health, State Agricultural Colleges, and State Universities often distribute films.

#### VIII. MAGAZINES

1. *American Journal of Public Health* — 370 Seventh Ave., New York City.
2. *Child Health* — The American Child Health Association, 370 Seventh Ave., New York City. Issued monthly. \$3.00 per year; 25 cents single copy.
3. *The Crusader* — Wisconsin Anti-Tuberculosis Association, Health Service Bldg., Milwaukee, Wis. Monthly except July and August; 50 cents a year; single copy, 5 cents. As a supplement, publishes large sheet with calendar on one side and Health Reading Lessons (for primary grades) on other side.
4. *Hygeia* — The American Medical Association, 535 North Dearborn St., Chicago, Ill. Issued monthly. \$3.00 per year; 25 cents single copy.
5. *Journal of the Outdoor Life* — 370 Seventh Ave., New York City.

6. *Nature Magazine* — American Nature Association, 1214 16th St., N. W., Washington, D. C., \$2.50 per year.
7. *Public Health Nurse* — 370 Seventh Ave., New York City.
8. *School Life* — Bureau of Education, Dept. of Interior, Washington, D. C. 50 cents a year. Issued monthly except July and August. (Send subscription to Supt. of Documents, Govt. Printing Office, Washington, D. C.) Usually contains one or more articles on school health and health education.

#### IX. METROPOLITAN LIFE INSURANCE COMPANY PAMPHLETS

Copies of the pamphlets are obtainable free of charge upon application to local offices of the Metropolitan Life Insurance Company or to the Home Office, 1 Madison Avenue, New York City. They cover : Accidents (Home) — Accidents (Street) — All About Milk — Are You a True American? — Baby's Book — Child — Clean Up and Clear Up — Cook Book — Diphtheria — Eyesight and Health — First Aid in the Home — Get Rid of Rats — Goitre — Health of the Worker — Hookworm — How to Live Long — Infantile Paralysis — Influenza — Malaria — Measles — Metropolitan Life Liners — Mother Goose — Ounce of Prevention — Pellagra — Pneumonia — Prize Winner (Diphtheria Rebus) — Rickets and Scurvy — Scarlet Fever — Stamp Out Smallpox — Teeth, Care of the — Tonsils and Adenoids — Tuberculosis is Preventable — Typhoid Fever — War on Consumption — Whooping-cough; and *Circulars* — Baby's First Days — Baby's First Steps — Fly Circular.

Be sure to get *Health Education — A Program for Public Schools and Teacher Training Institutions*. This was published in 1925. It is the Report of the Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association. This is a 150-page book containing much suggestive information. You can secure it by writing to The National Education Association, Washington, D. C. Price, \$1.50. The bibliography is worth the price of the book.

## CHAPTER XI

### PLAY AND THE PLAYGROUND

**Significance of play.** Although there are still many people who look upon play merely as a superfluity of childhood, an excess of animal spirits which must be tolerated, there are increasing numbers of thinking persons who see in play a wise provision of nature for the development of the human race. It does not require much study of the play activities of children to see a close connection between the character and the extent of the child's play and the sort of life he leads when he grows to manhood. As the child plays so the man works. The playing prepares in an important way for the working. The naturalness, the freedom, the spontaneity of play are vital elements in the development of personality. Where these elements are lacking we see stunted, dwarfish, little old people, old before their time. The child, during all the years up to and through the teens, needs recreation, play, and the play spirit in his life, if he is to grow into the fullness of strong manhood. Play protects the child from the undue severities of his elders and from the hardness of the world, so that his years of infancy, say up to twenty, may mature the man who must bear the brunt of making both a life and a living. What we call personality is due in large measure to a development brought about through play and work.

It is the duty of this generation of teachers to supply that in which the homes fail, and the failure to develop the play spirit is one of the greatest weaknesses of the overserious country home.

The injection of this spirit of play, along with neighborhood sociability, will do as much to keep the boys and girls on the farm as will tying up the school with the farm and farm home by vocationalizing school work. Because of the abnormal repression of movement, schoolroom conditions induce nervous strain and cramped posture which should be relieved by vigorous physical activity during recesses and noon hour. Children inherit the play instinct but they do not inherit games. It is doubtful if the majority of country children know more than three or four active games, unless they have been fortunate in having live teachers interested in recreation.<sup>1</sup>

**Play a basis for education.** Perhaps it would be better to say that the child is *educated through play*. Were it not for the development of mind and body which results from play, the teacher would have little or no basis for her work in the school. When the child enters school at six years of age, he has, through the varied activities of his play, built up his brain and the rest of his body, so that the teacher, utilizing this beginning which nature has furnished, is enabled to carry on her teaching processes. Of course physical, mental, and moral development go forward hand-in-hand, and we have only to observe children in play to see how their lives are being changed in these three ways each day by their spontaneous reactions to their environment. Both before entering school and during all the years of the school training, play is a most prominent factor in the education of the child.

**Play and health — physical development.** Play develops the heart and the lungs, and upon the proper growth and development of these organs very much of the success and happiness of the grown man or woman will depend. There is probably more danger of underexercise than of overexercise

<sup>1</sup> Reprinted from the *Idaho Bulletin* by permission of the State Department, Boise, Idaho.

in the play of childhood and youth, although of course both should be avoided. If for many years a child fails to secure sufficient out-of-door exercise in the fresh air and sunlight, the chances are that this lack can never be made up, no matter what may be done later.

In this country millions of people are in ill-health all of the time, and a good percentage of this illness may be directly traceable to lack of normal play during the growing years of life. Instead of a heritage of health and strength many people, because of a relatively playless childhood, are doomed to a life of weakness and inefficiency. Now that we are compelling children to go to school eight and nine months of the year, it behooves the school authorities to see to it that the school environment is wholesome and health-building instead of the opposite. Rural school children need play, directed play, as much as their city cousins, in order that there may be symmetrical development of the muscular system, that the nervous system may be normal and responsive to the needs of the individual, and that the blood may be of good quality, circulated with adequate force by a strong, sound heart. "Play is nature's preventive medicine."

**Play a moral safeguard.** Play is a moral safeguard because it affords a natural, harmless outlet for that excess of energy and spirit, which would otherwise be used in harmful and even in dangerous forms of expression. Natural play affords a much-needed safety valve for the youth of our land ; crime has decreased always uniformly where properly supervised play has been introduced to counteract the evil tendencies of the idle, loafing gang. When children and youths can find outside, objective interests and aims to take the place of a morbid subjectivity of mind and spirit, there always results a wholesome moral atmosphere and true moral

development. Every careful observer has noted the good effects of well conducted games and sports. In state prisons the value of a safety valve in the form of baseball or a prison band has been recognized and successfully worked out. The good effect upon the spirit and the self-control of the prisoners is noticeable. A rural teacher who knows how to be a good leader can do much to promote the moral health of a group of children through well-planned and well-directed play.

**Analysis of moral development.** It will be useful to note some of the moral, social, and intellectual qualities which are developed by play. There is quite a long list, including the following: self-control, perseverance, obedience, unselfish regard for the other fellow, initiative, leadership, alertness, coolness, wariness, good judgment. Let us single out a few of these to illustrate the development which is possible and desirable.

*Self-control.* This quality is necessary for success in almost any game, as also in playing the game of life. Without self-control but little progress can be expected. In playing ball a loss of temper, for example, is fatal. Many a pitcher's skill for an entire day or game has been lost because of a fit of bad temper.

*Good judgment.* The best players are, other things being equal, those who use the best judgment. Judgment is an intellectual quality, but it has a moral element in it. Judgment is needed in all situations in life. It is slowly built up as a result of working and playing in many situations demanding a variety of interpretations and reactions. To be a player or a citizen of good judgment is to merit and to receive the praise of the group or of the community.

*Obedience.* The spirit of true obedience and the readiness to obey are essential qualities of the most effective citizen-

ship. Such obedience is learned on the playground, particularly if the play is properly supervised. The child understands that he cannot expect a place in the game unless he conforms to the rules and obeys the leader or captain. As he does not wish to lose his place he obeys, even though he may be disobedient elsewhere, for a time, until he sees the fundamental need for obedience in all the relations of life.

*Coöperation.* Teamwork is needed in modern civilization ; it is needed among country people, who often find such co-operation difficult because they were not so trained in childhood and youth. Group games cannot succeed without the spirit and the method of coöperative endeavor. Children need to learn to subordinate selfish personal interests for the good of the social body. Such training in unselfish coöperation makes for the highest and best type of useful citizenship — a type greatly to be desired in our day and age.

*Initiative.* This means the ability and the habit of starting new endeavors or enterprises, and of carrying them on to successful termination without being told or controlled by any outside force or authority. Country boys and girls are often lacking in initiative because they have been too much under the artificial domination of parent and teacher. What they need, among other things, is the opportunity of the playground for initiative and freedom in individual activity. Play assists greatly in placing a child upon his own responsibility, where he must choose for himself as to goal or purpose and the means of accomplishing or realizing the purpose.

*Unselfishness.* Play affords plenty of opportunity for children to think of one another, especially of those who are weak and cannot do everything which a normal child can do. In every school there are children who for one reason or another are "picked on" and mistreated in various ways. It is the teacher's business to see that bullying is discon-

tinued, and that the bully gets what is rightly coming to him — righteous retribution. The teacher needs to know what is going on outside; it is positively dangerous to permit injustice to continue day after day. It is training in bad citizenship. The wrongs of the playground may well serve as objective material for practical civics. One of the lessons of government is that the strong shall protect, instead of abuse, the weak.

*Alertness.* Success in life demands alertness, quickness, promptness of response, the ability to decide and to act quickly; games teach and train children in this quality, for the game itself is impossible without nimbleness of wit. The slow are pushed aside and suffer, are defeated because of their slowness. A normal child soon learns the lesson that he must "speed up," if he is to hold his own. So he quickens, frees, and lubricates his mental and physical machinery, and develops needful skill in running, dodging, and throwing the ball. This alertness is carried over into the work of the school; the better moral fiber, along with the development of intellectual acumen, soon results in greater progress in the work of education. Thus, play scores another point in the discipline of life.

**The teacher's part in play.** The character and the extent of the play in a rural school will be determined by the aims, the standards, and the spirit of the teacher. That the teacher has responsibility in the matter of play as well as in the teaching of arithmetic, for example, becomes apparent as soon as the place and the function of play in education are understood and realized. When the teacher understands that play is not only recreative but also educative and that the advancement of her pupils is in large degree dependent upon the kind and the amount of playing they do, play will occupy a larger place in her plans and programs. As a

matter of fact, play in the best schools is a regular part of the curriculum and receives daily attention the same as other educative procedures.

The rural teacher should know how to play the ordinary games; she should go out on to the playground with the children at noon and recesses, at least a portion of such periods every day. By taking part in the play of her pupils the teacher will be using the ounce of prevention in matters of management, for frequently there is no small amount of mischief and evil doing which may go on at intermissions. Teacher and pupils enjoy the daily games and are benefited thereby.

**Supervised play.** Supervision does not mean interfering with the rights of the children. It does not mean thwarting them in their natural, spontaneous activities. It does not mean making their play any less enjoyable. The right sort of supervision is not meddlesome, but rather allows for the free expression of the child's play spirit. Supervision is the unostentatious, kindly directing of playground activities into channels which are most worth while because more purposeful, better coöordinated, and better calculated to produce true educational results. Supervision is unquestionably needed, because when children are left wholly to themselves they do not vary their play greatly, and they are quite likely to engage in play which involves very little, if any, educational value. One of the very best results of the teacher's presence on the playground and of her active participation in the games is the salutary effect upon the pupils and thus upon the school. Thus the teacher protects herself and promotes her own welfare. In several states the rural teacher is expected to spend a portion of the noon hour in supervision of the playground. The teacher is the natural play leader in the country school and the one to teach new

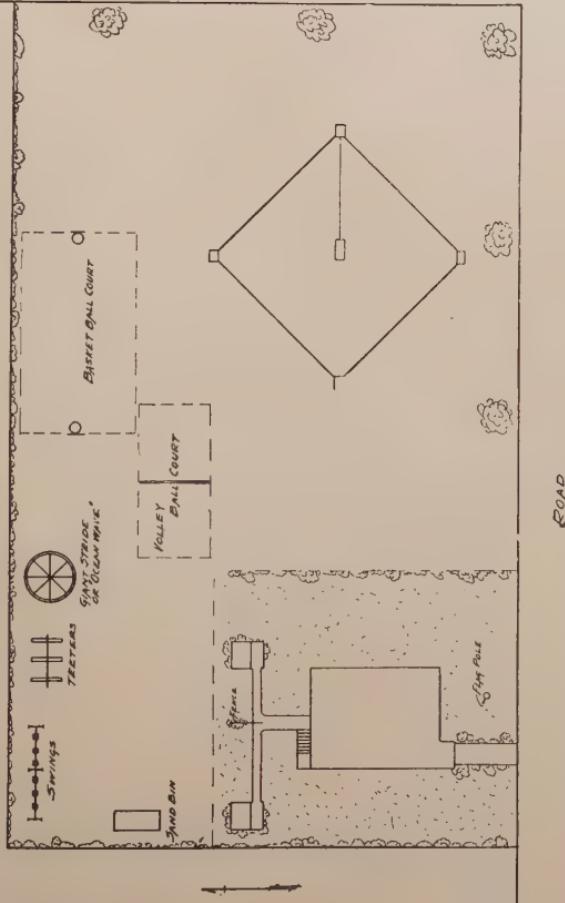
games. By exercising a wise control she will prevent disorder, secure fair play, and further honest and honorable coöperation, all of which is important training in good citizenship.

**Group games.** It should be the teacher's constant aim and effort to have as many children play as possible. There should be the maximum number of active participants and the minimum number of passive spectators. In order to bring this about the teacher must see to it that the good and the poor players are mixed. A good plan is to appoint two leaders who will choose the members of their respective groups. Then these groups may contend against each other for the day or the week, as desired. For example, in the broad jump the total number of feet jumped by one group will be compared with the total of the other group, and if each side has both good and poor jumpers the contest will be fair and interesting. This plan of playing group against group can be used in several kinds of games and sports.

**The playground.** Many, probably most, rural school grounds are entirely inadequate both as to size and the nature of the plot of ground on which the house stands. It is quite common to find a school yard of less than an acre, and it often seems that the poorest land in the district had been selected for the site. The school lot is often small, rough, and altogether unfitted for a playground. It may be nothing more than a gullied, uneven, stony hillside, good for nothing except possibly a sheep pasture. There is no place to play the ordinary games; and as for a baseball diamond, that is entirely out of the question. It must have been purely mercenary motives that governed the selection of the site. Certainly the welfare of the children was evidently not considered. Fortunately there are many and shining exceptions to the above rather dark picture.

*Courtesy of State Department of Public Instruction, Madison, Wisconsin*

**Plan for adequate school grounds**  
(54 yds. by 90 yds. — approximately one acre.)



The site should be not less than two acres in extent, so that there will be ample space for a baseball diamond and room on the sides for the games of the other children. The building should be set far enough to the front of the grounds, so that, while allowing for a good lawn on the side toward the road, there will also be plenty of room in the rear for the playground. The surface should be even and free from stones. It will not be a difficult task for the children to clear off all the smaller stones and pieces of wood. If the school board and other taxpayers of the district will look after the heavy work, surely the teacher and the children with rakes and hoes can take care of the job of keeping the grounds cleaned off. This is a legitimate way in which to use some school time.

There should be no trees to obstruct the play. A tree for a base in playing ball is hardly the proper thing. The suitable place for trees is around the sides or perhaps for ornamental purposes on the lawn in front, surely not on the playground itself. There should be a well-rooted sod, thick and capable of withstanding the wear and tear which the children will give it.

If the grounds are fenced, there should be some easy way of getting through the fence in the rear, perhaps by means of a stile, so that the ball can be quickly recovered without danger to the child or to the fence. No walks should run directly across the playground, at least not diagonally across; the walks to the outbuildings can just as well run along the side or rear fence. The play space should be as unobstructed as possible. Seesaws, volley-ball posts, swings, giant strides, turning bars should not be placed in the middle of the grounds, but rather near to and running parallel to the fences.

**Playground apparatus. Conditions and Needs.** It is much more common now than a decade ago to find various

pieces of apparatus for play on rural school grounds. It is not unusual at the present time to see swings, seesaws, giant strides, and children are now playing volley ball and tether ball in many schools, as well as baseball, the old stand-by. There are still too many schools with little or no equipment, but great gains have been made in the past ten years. Sometimes poor judgment has been shown in the selection of apparatus. A cheap quality has often been purchased, and this has caused more or less trouble, in some cases actually endangering the lives of the children. Many schools have homemade apparatus, some of it strong, well-made, and attractive in appearance, but a good deal of it not built right and more or less unsightly. "Every school should have some equipment; but the teacher must not feel that her responsibility is lessened, for there is no virtue in the apparatus itself. It is only one means to an end. Swings and teeters will not create in a child a spirit of fair play or team work, perhaps not even the play spirit. The apparatus should supplement, not take the place of, organized play." Nevertheless, it remains true that while children can play many games with little or no equipment, the swing, the slide, the giant stride, and the sand bin will add greatly to the play situation, assisting the rural teacher to solve the play problem, especially with the smaller pupils.

*Elements which determine selection.* When the question of what to buy or make in the way of apparatus is up for consideration, the number of pupils, the ages and sizes of pupils, and the probable use of the equipment should be given due weight. It is a fact that in many rural schools most of the pupils are in the first four grades; they are primary children and will not be able to play basket ball, for example. As K. C. Richmond suggests in his bulletin, basket ball was at one time all the go, and school grounds

were fitted out with the posts and baskets, which were used but little or not at all because there were no children old enough to use them. Swings and seesaws will be used by small children, but not basket ball or tennis courts. In the selection of apparatus, it usually will pay to get a first-class quality of material, if not, indeed, the very best. It is poor economy to buy cheap equipment. It will pay to get good galvanized steel and iron. It will be a good investment to get a first-class playground ball, covered with horsehide, costing about two dollars. It is unsafe to buy a cheap slide or a cheap giant stride. Some homemade giant strides are perfectly good and safe, and some others are a menace to the lives of the children.

*What to get.* Richmond, in his bulletin on *Rural School Playgrounds and Equipment*,<sup>1</sup> writes as follows :

The following equipment for the average one-room country school is suggested : two playground baseball bats; one pair of jumping standards; one sand pile; two seesaws; two swings; one turning bar; one volley ball, net, and posts; six bean bags for indoor use; one *Games for the Playground, Home, School, and Gymnasium*, by Miss Bancroft, published by The Macmillan Company.

The preceding list includes the minimum equipment and apparatus that should be placed in every school. Other equipment might be added, but the essentials for a small school are included. A larger selection might well include these additional articles : One giant stride, one slide, one tether-ball post, six tether balls, four tennis rackets, one tennis court with net and posts, one pair flying rings, one trapeze, one soccer football.

The equipment which any school possesses will depend upon the ideas and ideals of the teacher, her energy and

<sup>1</sup> RICHMOND, K. CECIL — *Rural School Playgrounds and Equipment*. Bureau of Education, Washington, D. C.

leadership, and the public, progressive spirit of the tax payers and the board. The average district can have and will have what it needs and wants badly enough. Brief descriptions of several useful kinds of equipment follow:



*Courtesy of the Giant Manufacturing Company, Council Bluffs, Iowa*

#### A modern combination equipment

Such means of wholesome recreation will help to keep these lads out of mischief, while the teacher is working inside.

*Sand bin or pile.* This is one of the easiest things to provide and one of the best, especially for the smaller children. A sand table inside and a sand bin outside should be considered essentials. The bin should be about eight by twelve

feet, built with ten-inch planks and with a ten-inch board around the sides for table and seats. No doubt the lumber and the sand could be furnished by people in the district. This sand bin may best be placed under a tree in a corner of the grounds out of the way. It will be used a great deal



*Courtesy of the Giant Manufacturing Company, Council Bluffs, Iowa*  
**The old but ever-new swing**

during the fall and spring months, for children like to dig and to form various designs in the sand. By all means have a sand bin. It is simple, cheap, serviceable.

*Swings.* Two good swings should be provided, and they should be very strongly built and set parallel to the fence. No chances should be taken on weak construction. If wood

and rope are used they should be inspected frequently to see that they are in good condition. The swings will be used a great deal by the smaller children and sometimes by the older ones. The teacher should instruct the children in the use of the swing, and caution them not to stand up or get in the way when the swing is moving. The seat boards should be ten inches wide and about two feet long. The rope should be of such length that the boards come about two feet above the ground. The best way to attach the seat board is by means of holes through the board for the two ropes, one on each end. Examine the ropes frequently to detect flaws.

*The giant stride.* The giant stride is one of the safest and most useful of all playground equipments, providing it is properly and strongly built. It can be homemade, or if funds are available, a first-class piece of apparatus can be purchased at a fair figure. Buy one with ball bearings. The essentials for a giant stride are a pole, a wheel, and enough inch rope. A hickory pole about sixteen feet long and eight inches in diameter will answer the purpose. A discarded wagon or machine wheel should be used, if strong and able to stand the strain. This wheel should be mounted on top of the pole so as to rotate freely. The pole ought to be set solid in the ground four feet or more — better, in concrete. Six ropes may be securely fastened to the wheel and should come down not far from the ground with loops or knots as far up as the children can reach. Rope ladders are better. The giant stride is a very good substitute for the merry-go-round; children delight in swinging out and around, sometimes jumping, sometimes off their feet. This is good exercise for children of various ages.

*Jumping outfit.* Children like both the long jump and the high jump. For the long jump a pit is needed, and for the

high jump standards are necessary to avoid guessing. Both the pit and the standards can be made by older boys under the teacher's direction. For the pit, the earth needs to be dug out for about fifteen feet, and six or eight inches of sand or sawdust placed in the bottom. This makes a soft landing surface. It is well to provide a jump or "take-off" board



*Courtesy of the Giant Manufacturing Company, Council Bluffs, Iowa*  
**The seesaw or teeter-board**

also. A pair of standards consists of uprights firmly fastened to broad bases. The uprights need holes an inch apart in which to place pegs for supporting the string or crosspiece. The two uprights should also be marked off in feet. The pit and the standards will afford the means for unlimited play and exercise.

*Turning bar.* With a good turning bar, properly placed, many an otherwise idle minute can be utilized by the boys in doing stunts, in chinning contests, and in showing off. This is the simplest apparatus that can be placed on the school grounds, and yet offers the larger boys an unusual opportunity to do stunts, etc., when the playgrounds cannot be used because of rain or snow. When time is not available for organized play, the boys will turn to the horizontal bar for a few minutes' recreation. If for some reason several pupils are absent from school, leaving too few present for organized games, the bar will furnish a means of entertainment for those present. With the ever-increasing emphasis being placed on individual athletic tests, the horizontal bar is absolutely essential, inasmuch as it develops the boys' ability in chinning contests. The pull-up, or chinning contest, is included in practically all grade-school athletic meets at present. As a corrective for round shoulders, the horizontal bar has but one equal, volley ball. For this reason, if for no other, it should be placed in the country school. Round shoulders and wing shoulder blades are much too common, and the bar will help incalculably in correcting the harmful effects of poor posture.<sup>1</sup>

*Coaster slide.* Slides can be purchased at prices ranging all the way from \$25.00 to \$150.00. Children use the slide very much and enjoy it. The wear on the clothing is not so great as some people think. The slide should be well-built with non-rust steel bottoms, hand rails, and all other parts well constructed. Several children will use one slide, going down one after the other with little disagreement, commotion, or jangling. The slide is not so dangerous as the swing or the seesaw. A *good* slide is a good investment. Get a thoroughly good slide or don't buy any at all.

**How to get equipment.** In some districts money to buy playground equipment will be set aside in the annual levy

<sup>1</sup> RICHMOND, K. CECIL — *Rural School Playgrounds and Equipment*; United States Bureau of Education.

at the school meeting. If the tax payers and the board see the value of play and the need for equipment, the problem is simple enough. It may be, however, that the teacher will need judiciously to educate the people of the district up to the point where the funds will be forthcoming. She can often



*Courtesy of the Giant Manufacturing Company, Council Bluffs, Iowa*  
**A portable junior slide**

do this through the children, or by means of a mothers' meeting, where she can courteously and wisely present the facts and the arguments. In some districts it will be possible to have some of the apparatus made by the older boys and the men of the district. If sufficient interest is created a

great deal of assistance can and will be rendered in this way. Such interest may sometimes grow out of an evening school entertainment and community "get-together." At such a time some good speaker may present the cause of play so convincingly and appealingly that interest and coöperation will be secured. The proceeds of a box social may be used to buy equipment. The author has known rural teachers to take in as high as \$75.00 in one evening. In some cases teachers have secured funds by having pupils make and sell various articles at a school fair or bazaar. Wilkinson thinks that the method of school entertainments is "preferable to having the board appropriate funds, for the reason that it brings the people together for social intercourse and serves to arouse public interest in the school." How far shall we go in buying school equipment with entertainment, box-social, pie-supper money? Shall we discriminate between pictures and desks, or between a victrola and a set of maps, in expending money raised by regular taxation? What is the distinction between luxuries and necessities?

**Ball.** Nearly all children like to play ball. There is a general, abiding interest in ball games. Every rural school should have enough good balls and bats to supply the needs of the pupils. It is the purpose of the author to give short accounts of ball games suitable to the average country school.

*Playground baseball.* Although baseball is our national game, it is hardly possible to play the regulation game in a rural school because of the impossibility of making up the two nines. The attendance is too small and the pupils are of all ages from five up to fifteen. However, with the larger and softer playground ball it is entirely possible to play a game with perhaps fewer players on a side. Very often some of the older girls become excellent players, even excelling

some of the boys. In most schools all but the primary children can play the game. The pitcher tosses the ball, and as it is soft, the children do not fear it. No gloves are needed. Since the ball is large and is tossed and not thrown swiftly, it is easier to hit; thus more runs are made, adding much to the pleasure and the exercise. This game gives a chance for organized, coöperative play, which of course is better training for the boys and girls.

Bear in mind here, in particular, the game of indoor baseball which can be played out-of-doors, using a diamond thirty-five feet square, or for the girls perhaps a diamond twenty-seven feet square. A soft 14-inch or 16-inch ball is used, and the bases are sacks of sand. A good ball with a horsehide cover can be bought for about \$1.75.

*Volley ball.* This is a good game for any country school, and it can be played the entire year by all the pupils except the smallest, girls as well as boys. From two to ten can play on a side. Six on a side makes a good game. The game is simple, easy to learn, not too highly organized; but to become skillful requires a good deal of practice. The teacher should direct the play for several weeks until the pupils secure the necessary skill and can maintain their enthusiasm. The game is splendid from a physical standpoint, as it will correct round shoulders and increase the chest expansion. This is largely due to the fact that while the ball is up in the air, often several feet, the children must continually look up, keeping their heads up and their shoulders back. The game is a good one for the teacher, who should play it with the children whenever possible.

A volley ball can be purchased for prices ranging from three to five dollars. Sometimes a basket ball is used just as successfully. A tennis net seven feet high is stretched between two posts to separate the two teams. The object of the

game is to keep the ball in the air. The rules of the game may be found in the book on *Games*, by Jessie H. Bancroft, published by The Macmillan Company, which should be found in every rural school. Instead of a tennis net some schools use a canvas, which is satisfactory.

*Dodge ball.* This game can be played by ten or more players, and is for boys or girls playing separately. All that is needed is a basket ball and a clean grass plot on which to play the game.

The players are divided into two equal groups. One group forms a circle, about thirty-five feet in diameter for girls and about forty-five feet in diameter for boys; the other group, the dodgers, are scattered about within the circle. The circle players throw the basket ball at those inside the circle, who seek by dodging and running about to prevent being hit. A player who is hit joins the circle. This continues until all have been hit. The original circle players and the dodgers now exchange places, and the game goes on as before.

The dodgers do not try to hit the circle players with the ball, but simply pass it back to them, or the circle players may go inside the circle and get the ball after a throw. Dodgers must be hit by the ball on the fly. After striking the ground the ball is "dead." The game may be made competitive by seeing which team can strike the other side out in the shortest time. In this case the dodgers who are struck out are out of the game. If it is found that injuries are sustained by some who are hit, the rule should be made that the ball must hit players below the knee. One variation of the game is to have players sent into the ring in groups of five. The winners form a new group, and enter the ring to determine who of all the players lasts the longest.

*One old cat.* This is a fine game for girls as well as boys. A soft playground ball if used. Four or more can play at the

game. The players comprise the pitcher, the catcher, the batter, and as many fielders as desired. The batters do not run bases. When the pupils come out on the playground at intermission, one cries out "my first bat," and is the first batter. In the same way others become pitcher, catcher, first fielder, second fielder, and thus down the line. In playing, if a fly ball is caught, if the ball is caught on the third strike, or if a foul ball is caught on the fly, or on first bound, then the batter is out. If a third strike is not caught then the batter is given three more strikes. When a striker is out the catcher becomes batter, the pitcher becomes catcher, the first fielder becomes pitcher, and so on. The batter who goes out becomes the last fielder. Sometimes the game is varied by having the batter run to a base and back to home plate when he strikes a fair ball. In making this run the batter is out if the pitcher or catcher or some other player reaches the home plate with the ball before he does. One old cat is lots of fun, and children rarely tire of it.

*Tether ball.* Curtis states that tether ball is probably the best game that can be played in a limited space by two players. Experience has shown that this is a good game for country schools. The equipment consists of a pole about three inches in diameter, thirteen feet long, set three feet in the ground. Around the pole six feet above the ground a black band is painted. The tether ball is a tennis ball in a bag made of netting, and this ball is held by a cord which is fastened to the top of the pole. The ball is suspended about two and a half feet from the ground. A line twenty feet long through the center of the pole divides the ground into two courts. A circle six feet in diameter described around the pole is to keep the players away from the pole. The players stand on opposite sides of the twenty-foot line, and each one has a tennis racket. The player who serves strikes

the ball a vigorous blow and attempts to wind the ball and cord around the pole above the black band. The other player tries to reverse the movement, and to wind cord and attached ball in the opposite direction. The players must keep back of the line and outside of the circle. The ball is kept up in the air for the most part, and each player must run, jump, reach, and stretch up, so that the exercise is anything but mild. It is so strenuous, in fact, that Curtis says that fifteen minutes of tether ball is equivalent to one hour of tennis. The more the skill, the greater is the interest; children must be taught and encouraged to become skillful. It is a game in which the interest and the benefits constantly increase.

**Township and county playdays.**<sup>1</sup> The Rock County (Wisconsin) Play Day held in the fall of 1924, was the finale of eighteen preliminary township playdays held the preceding May and June. The County Play Day was held at the county-seat fair grounds in Janesville, and was attended by several thousand persons.

Township playdays featured interdistrict competition for both children and adults in athletic events and other contests. The school district team that won first honors in a given event at the township playday represented its township in the intertownship competition at the county playday.

Of 135 one- and two-room school districts in the 18 townships that held playdays, at least 120 participated, while 69 different districts won first honors in one or more events.

At the township playdays pennants displaying the township colors were provided by the local playday organizations, as awards to the districts that scored the largest number of points in the day's events. Honor ribbons were awarded to individual members of teams that scored first, second, and third places in each event. The offering of prizes by merchants or other commercial concerns

<sup>1</sup> This discussion is by Mrs. Florence Slown Hyde of the *Janesville (Wisconsin) Daily Gazette*.

was discouraged, as it was felt that the playdays should be sponsored mainly by the people of the school districts and that the prize-winning element should be kept in the background. The principal deviation from this rule was in connection with the Kite Tournaments, for which prizes were furnished by the *Janesville Daily Gazette*. This newspaper, which sponsors a *Good Times Club* with branches in all of the rural schools of the county, originated the kite-contest plans, and furnished directions for kite making to the schools.

The central idea of the Rock County playdays was to get everybody to do some playing. For this reason events for school pupils and those for adults were carried out simultaneously, while a committee entertained the children under school age with circle games or story-telling. While adults were using one kind of equipment, school pupils were using a different kind. When any equipment was not in use for a scheduled event, it was available for impromptu games that any group wished to engage in.

Not to exceed an hour was allotted for a musical and literary program by school pupils or other talent, immediately following the dinner. A few townships raised money to hire a band, but those that did not go to this expense seemed to have more zest for the playday games and contests. It was found that a refreshment stand in charge of a volunteer committee netted enough profit to pay for pennants and individual badges and to meet other small expenses. The stand operated at the county playday returned a profit of \$85.00, which, with a \$3.00 assessment on each township, provided a fund sufficient to pay all expenses. County playday trophies were wooden shields finished in mahogany with silver lettering designating the honors won and the names of team members. These shields were awarded to twenty-two different districts.

The competitive events were largely planned with the idea of team play, thus giving the little fellow a chance to do his bit to help his school win. Small schools were encouraged to compete with larger schools through a system of dividing the points scored by the school enrollment. Two age groups were found sufficient for the relay races and jumping relay. The dividing age was

eleven years. In the boys' jumping relay the total jump of the four boys was added, which gave the short jump of the little fellow a chance to help his team win. In the girls' baseball throw, the distance of each girl's throw was added to the score of her side, and the total determined the winning team.

The basket dinner was usually planned by a committee composed of one woman from each district, and served cafeteria style. The most expeditious arrangement was a hollow square made with tables or planks and having the complete menu assembled on each of the four sides, thus making it possible to serve four lines of hungry folks at the same time.

*The athletic events.* The program of athletic events and other contests carried out at the county playday, including the prescribed size of teams participating, was as follows :

#### FORENOON

##### A. School Pupils' Events

Playground Ball Tournament —	Kite Tournament —
9 to 11 (5 to 10 boys and girls)	(One boy or girl who won first
Boys' Horse Shoe Tournament	honors in kite flying in each age
— 11 to 12 (2 boys)	division at township playday)

##### B. Adult Events

Men's Volley Ball — 9 to 10:30 (4 to 6 men)	Men's Horse Shoe Tournament — 10:30 to 12:30 (2 men)
Women's Corner Ball — 9 to 10:30 (6 women)	Women's Potato Relay Race — (4 women)
Dinner served	12:00 to 1:00

Community Singing and Short Address      1:00 to 1:30

#### AFTERNOON

##### A. School Pupils' Events

Volley Ball — 1:30 to 3:00 (4 to 5 boys or girls)	Girls' Baseball Throw (4 girls) 25-yard Relay — 3:30 to 4:00
Jumping Relay — 3:00 to 3:30 (4 boys with girls making up the quota if necessary)	50-yard Relay — 3:30 to 4:00 (4 boys or girls) Boys' Centipede Race — 4:00 to 4:15 (4 boys)

*B. Adult Events*

Men's Kitten Ball — 1:30 to 3:30 (5 to 10 men)	Men's Sack Relay — 3:30 to 4:00 (4 men)
Women's Playground Ball — 1:30 to 3:30 (5 to 10 women)	Women's Nail Driving — (1 woman at a time)

*How playdays were organized.* The committee for township playdays drew representatives from each district for committees on grounds, games, dinner, program, stand, and reception or invitations. The games committee had a subchairman in charge of each event.

The work of organization was done under the direction of the County Y.M.C.A. Secretary, J. K. Arnot, who started the township playdays several years ago as a piece of community service. Mr. Arnot deserves the greatest measure of credit for the development and success of the movement. Equipment for all events was furnished by the Y.M.C.A., with the secretary at hand to assist in carrying through the day's program.

The Rock County Play Days for 1925 and 1926 were held in June at the Janesville Fair Grounds. There was an even larger attendance than in September, 1924, and the interest was apparently undiminished — possibly greater than before. Apparently township and county playdays have come to stay in Rock County, greatly to the social and civic welfare of old and young alike.

## REVIEW, TEST, AND PROBLEM EXERCISES

1. Name the new games you would teach the average country child.
2. Write out several cautions which you think should be observed by teacher and pupils in regard to play, including the use of playground apparatus.
3. Explain: "Children inherit the play instinct but they do not inherit games." What does this imply for the teacher?
4. In what ways is play a moral safeguard? Give illustrations.
5. Outline a day's program for a Township Field Day Meet, in which eight country schools take part.
6. Get a catalogue and compute the cost of equipping a country-school

playground with all that is necessary for a school of thirty pupils of ages from six to sixteen.

7. On pages 192-194 seven personal attributes or qualities are discussed briefly. Add seven more to the list and arrange all in the order of their importance.

8. What is the difference between a volley ball and a basket ball? A regulation baseball and a playground ball? A golf ball and a tennis ball?

9. Write ten rules and directions for the care of playground apparatus.

10. Tell fully how to make a homemade giant stride that will be safe and workable.

11. You are to have a mothers' meeting on the fourth Friday afternoon in September. Outline a ten-minute talk in which you will endeavor to secure the coöperation of the mothers in purchasing some playground equipment.

12. Supposing a rural school plot of ground contains two acres and fronts ten rods on the road; set the schoolhouse where it should be, lay out a baseball diamond — 35' × 35' — and locate two swings, two teeter ladders, one volley-ball court, one turning bar. There should be an adequate, attractive lawn. Indicate the location of ten trees of five different varieties. Label everything.

#### REFERENCES FOR THE TEACHER'S READING AND STUDY

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3. *Bulletin on Physical Education*, No. 36; University Extension Division, Bloomington, Ind. Send \$.15 for postage.
4. CURTIS, H. S. — *Play and Recreation for the Open Country*; Ginn and Company. 1914.
5. CURTIS, H. S. — *School Grounds and Play*; Bureau of Education, 1921.
6. DRESSLAR, F. B. — *School Hygiene*; The Macmillan Company. 1913.
7. GALPIN, C. J., AND WEISMAN, ELEANORE — *Play Days in Rural Schools*. — University of Wisconsin. 1919.
8. HOFER, M. R. — *Children's Old and New Singing Games*; A. Flanagan Company. 1901.
9. HUTCHINSON, DOROTHY — *Preparation of School Grounds for Play Fields and Athletic Events*; Bureau of Education. 1923.

## 216 EVERYDAY PROBLEMS OF THE COUNTRY TEACHER

10. JOHNSON, G. E.—*What to Do at Recess*; Ginn and Company. 1910.
11. LEE, JOSEPH—*Play in Education*; The Macmillan Company. 1916.
12. LELAND, E., AND LELAND, L. H.—*Playground Technique and Play-craft*; F. A. Bassette Company. 1909.
13. LINDEMAN, E. C.—*Recreation and Rural Health*; Bureau of Education.
14. RICHMOND, K. C.—*Rural School Playgrounds and Equipment*; U. S. Bureau of Education. 1920.
15. *Spaulding's Athletic Library*; American Sports Publishing Company. New York City.
16. *Wilson's Athletic Library*; Thomas E. Wilson and Company. Chicago.

Excellent bulletins and manuals pertaining to play are issued by several state departments of education, including Montana, Texas, Wisconsin, Indiana, Michigan, Idaho, Nebraska, New York, New Jersey, and California. There is a small charge for most of these publications, which can be ascertained by writing to the chief educational officer of the state.

The following practical handbooks are published by The Playground and Recreation Association of America, 315 Fourth Avenue, New York City, and sell for \$.25 to \$.50 each. It will pay any teacher to write for the complete list: (a) *Community Recreation*, (b) *Comrades in Play*, (c) *Games and Plays for School Morale*, (d) *Home Play*, (e) *Layout and Equipment of Playgrounds*, (f) *Pioneering for Play*, (g) *Rural and Small Community Recreation*.

## CHAPTER XII

### THE HOT LUNCH

**What it is.** “ By the hot lunch is meant that part of the school child’s dinner which is prepared and served in the schoolhouse in addition to the lunch brought from home. This additional hot part of the meal may consist of nothing more than hot cocoa or an appetizing, nutritious soup. The kind and quality of the hot food served will depend upon the teacher and upon her ability to secure the coöperation of mothers and children.”<sup>1</sup>

**Advantages.** The home economics circular No. 13 issued by the Bureau of Education in May, 1922, states that the advantages of hot food at noon are many :

The child always eats just as much of the cold food as he did previously and receives as much additional nourishment as the total nutritive value of the hot food given him. Since it is almost impossible to overfeed a rural child who walks from 1 to 3 miles in winter weather, besides playing at noon and recesses and doing some chores night and morning, the added nourishment of the school food is greatly to be desired for all children, and especially for those who give evidence of undernourishment. The agreeable flavor of the hot food, its neat service, the social companionship insured, where all sit down and eat together, all contribute to the conditions which increase appetite and enhance the palatability of all food eaten.<sup>2</sup>

<sup>1</sup> STILLMAN, GLADYS — *The Hot Lunch in Rural Schools*; Home Economics Extension Office, University of Wisconsin, Madison. Miss Stillman has kindly given the author permission to use her bulletin freely.

<sup>2</sup> *Food Leaflet No. 13* — Department of Agriculture, Washington, D. C.

The hot lunch properly conducted results in better health, greater enjoyment of the noonday meal, improved eating habits, better table manners, added facilities for health instruction and training, better school work in general, and more regular school attendance.

**Equipment needed.** In Circular No. 127, entitled *The Hot Lunch in Rural Schools* and issued by the Wisconsin



*Courtesy of College of Agriculture, University of Wisconsin*  
**Hot lunch equipment**

College of Agriculture in January, 1924, the following items are given as the minimum equipment :

1. A two-burner or, better, a three-burner oil stove, which can also be used by the Parent-Teachers Association or the Community Club.
2. A small table or perhaps a substantial dry-goods box. The lower part may be inclosed as a cupboard for the dishes and cutlery. A door in front will keep out dust and mice. Lard tins or cracker

boxes may serve as containers for materials attractive to mice.

3. Dishes for work in preparing food. A granite kettle with tin cover to fit, of a size according to number of pupils to serve; large long-handled spoon, teaspoon or measuring spoon, tablespoon, measuring cup, quart measure, fork, paring knives, potato masher, vegetable brush, can opener, teakettle, oven. A few baking tins are useful, but not absolutely necessary. A one-compartment fireless cooker made by the pupils will aid greatly in decreasing the labor involved and in preparing the lunch.



*Courtesy of College of Agriculture, University of Wisconsin*  
**Hot lunch equipment**

4. Dishes for serving. For each child a large cup with a handle, a spoon, and a paper napkin. These may be brought from home by each child and kept at school, or they may be supplied as part of the equipment. For serving the food, especially soup and cocoa, a large pitcher is useful.

5. Cleaning equipment. Dish towels, dish cloths, cleanser, dish pans, soap, sapolio.

**Making and using a fireless cooker.** The fireless cooker, indispensable for every household, saves fuel, makes the kitchen comfortable, and saves time and labor. The United States Department of Agriculture (*Food Leaflet No. 13*) estimates that a fireless cooker may be made for about a dollar — this was some years ago ; probably more now.

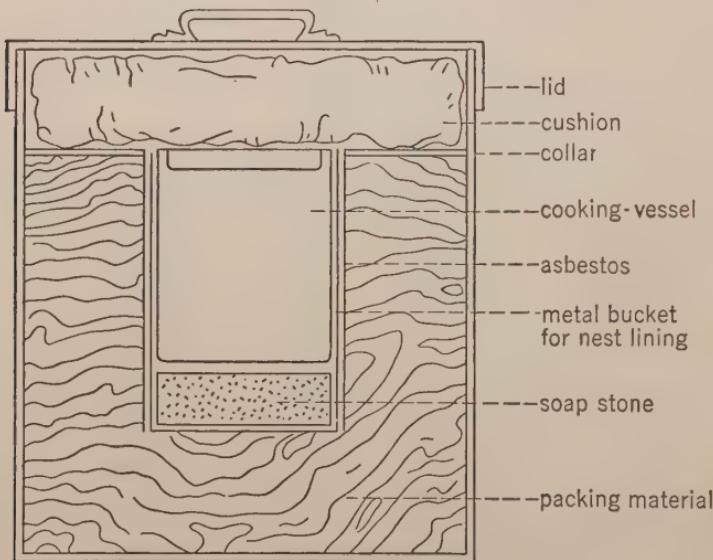


Fig. 4.—Homemade fireless cooker

*Materials needed.<sup>1</sup>* 1. The outside container: Any good-sized box or bucket with a tight cover — a grocery box, a butter firkin, a wooden candy bucket, a 100-pound lard can, or a new garbage can.

2. Packing material: Soft hay, excelsior, ground cork, sawdust, tightly crumpled newspapers, or any other good nonconducting material that can be packed in closely. This packing material forms a nest for the cooking vessel.

3. The nest lining: A metal or enamel bucket and sheet

<sup>1</sup> From *Food Leaflet No. 13*, U. S. Dept. Agr.

asbestos to cover the bucket. The bucket must have straight sides and a lid, and must be of such a size as to allow at least three inches of packing material between it and the outside container at top, bottom, and sides.

4. The cooking-vessel: A tight-lid vessel to fit closely into the nest lining and yet slip in and out easily, or two or three of the small ones especially made for the fireless. The best kind is of enamel, granite, or aluminum.

5. Cardboard: to make the collar.

6. The cushion: Denim or muslin stuffed with the packing material. This cushion is to be pressed down across the top under the outside lid of the container.

7. The two soapstone disks: purchasable at a hardware store. They are not needed for all cooking, but with them you can cook more quickly and in greater variety.

*How it is made.* (1) Line the container with newspaper if a wooden box is used. (2) Pack the bottom of the container compactly with a layer of packing material to the depth of three inches or more. (3) Cut a circle of asbestos, two inches larger than the nest liner. Place the asbestos mat in the center of the packing. (4) Cut a strip of asbestos big enough to cover completely the outside walls of the bucket which is to serve as the nest lining, and tie it in place. (5) Place the bucket with its asbestos covering in the center of the asbestos mat. Hold in place and tightly fill in the space between it and the walls of the outside container with the packing material. Pack in solidly to within one-half inch of the top of the bucket. The success of your cooker depends largely upon the tightness with which you crowd in the packing material, which prevents the heat from escaping from your hot food. (6) Cut a piece of cardboard to fit in the outside container. Cut a hole in the middle of it which will fit closely over the bucket which fits the nest lining. This

"collar" holds the packing material in place. (7) Make a cushion for the top by cutting two pieces of cloth the size of the outside container and putting them together with a straight strip of cloth three inches wide. Stuff with the packing material. (8) Outside finishings: If a box is used for the outside container, the lid should be hinged and fastened down with a hook. If it is of wood, paint it or stain it a dark color. Casters make it convenient to move about.

*Some cautions.* Don't let the food or dishes cool before you put them in the fireless. The food will not cook unless there is enough heat shut up with it. Reheat the food that requires long cooking, if it cools before it is finished. Reheat the food before serving it, if necessary. A small quantity of food cools quickly, so either use the disks or put a small vessel containing the food in the regular cooking vessel and surround it with hot water.

Soapstone disks will increase the usefulness of your cooker. They can be heated above the boiling point of water and, when shut up in the fireless cooker, furnish the heat which cooks the food. If you made your fireless according to directions, you can safely use the disks. Heat them very hot but do not let them get red hot for fear of cracking. With one below and one on top of the cooking vessel you will be able to roast meat or even bake bread or puddings. Without the disks your fireless is useful only for certain kinds of food — cereals, beans, pot roast, stews, things that can be cooked in water. . . . For recipes adaptable to fireless cooking, send to United States Department of Agriculture, Washington, D. C., for *Food Leaflet No. 13* and *Farmers' Bulletin No. 771, Homemade Fireless Cookers and Their Use*.

**Pint-jar equipment and method.<sup>1</sup>** Mabel S. Stevenson,

<sup>1</sup> Reported by Miss Edith Lathrop of the United States Bureau of Education in a government bulletin.

public health nurse of Ramsey County, Minnesota, has instituted a novel plan for serving hot lunches in the rural schools of her county, which she calls "The Pint Jar Method Hot Lunch":

Each child brings some particular kind of food in a tightly sealed pint fruit jar. Upon reaching school the jar is set on a rack in a clothes boiler. The clothes boiler is partly filled with water and then placed on a two-burner oil stove. At the morning recess the wicks are lighted, and by noon the contents of the jars are hot.

The children are seated at their desks during the luncheon period. Monitors pass the jars. The cold lunches in the baskets are supplemented with the warm contents of the jars. Each child has his initials scratched on the cover of his jar in order to insure identification.

Miss Stevenson recommends that the children bring in their jars the following kinds of food: cocoa, milk, soups, certain kinds of fruit and vegetables, macaroni, rice, creamed eggs, baked beans, or stewed meat.

The equipment required for this method of serving hot lunches consists of a two-burner oil stove, clothes boiler, rack (water should reach halfway up the first layer of jars, the second layer is heated by steam), hot-can lifter, towel to wipe jars, and newspapers for desk on which to set jars upon lifting them from the boiler. Each child is urged to include a dessert spoon in his lunch basket, with which to eat from the jar, as a teaspoon is too short.

Both teachers and children like this method because of its simplicity. It eliminates cooking, odors, and dishwashing. It saves time, muscle, brains, money.

There are thirty-five rural schools in Ramsey County, and in 1922 practically every one of them served hot lunches in this manner.

**Ten practical suggestions.** *Secure coöperation and share responsibility.* Before beginning the work call a meeting of the mothers and talk over your plans. Impress upon them

the many advantages, physical and mental, that can be derived from the serving of a warm lunch at noon. The object is not only to add a warm dish to an otherwise cold and unappetizing lunch, but to teach the proper cooking and serving of foods and their nutritive value or relation to the body; to teach table manners, politeness and cleanliness; to draw the pupils together in a pleasant social hour; to attract children to school who might otherwise stay away; and to enable all to go back to their work with body and mind refreshed. Only when the community realizes the benefits the children will derive from hot lunches, will it coöperate with you and take the responsibility of furnishing you with supplies.

*Provide equipment enough for two or four girls to work at a time.* The necessary funds for a few utensils may be obtained by giving some sort of an entertainment or a box social. If you do not have a stove with a flat top on which you can cook, you can buy a one- or two-burner oil stove. There is a good list of simple equipment given in many state manuals. Each child may bring from home: a cup and saucer, plate, spoon, knife, and fork. These need not be of the best china or silverware in the home, but should not be so nicked or cracked as to lessen their attractiveness or to develop carelessness in dish washing. A cupboard in which to keep this equipment can easily be made by the boys from dry-goods boxes which may be obtained free or for a few cents from a local merchant. The girls can make curtains for the cupboard of some cheap material, heavy enough to keep out the dust.

*Choose only simple, nutritious foods, not fancy, dainty dishes.* Teach them to cook the things which they can serve their fathers and brothers at home. Study foods; find out which ones build up the body, which give us energy, and which reg-

ulate our body processes. Study the digestion of foods and the methods of preparation which make them more easily digested.

*Plan the lessons at least a week in advance.* Have the pupils show the list to their mothers, so that they may know what the children are expected to bring and have it on hand the following week. Moreover, the mothers, knowing the week's menu, can avoid sending in the child's lunch too much protein on a day when a protein food is cooked at school, too much starch or fat foods when such foods are prepared.

*Avoid taking too much time from the regular session.* Have pupils pare vegetables before school or at recess. Shortly before noon have girls begin the preparation of food so that it will be cooked at the time of intermission. When the bell rings the pupils pass out and wash hands, spread paper napkins on the desks, get the lunch which they brought from home, and their cup and plate, and sit down quietly to wait until served. While eating discuss the different methods of preparing the food, its nutritive value, and its proper time or place in the diet. State also the lesson for the next day. While some of the girls wash dishes, have others tidy the room. The boys may get water, empty the garbage, or perhaps help with the dishes. Boys sometimes make as good cooks as girls; so they should also do their share of cooking.

*Correlate cooking with other subjects.* In geography, when studying China, prepare rice at noon; associate Italy with the preparation of macaroni. In the physiology class study the digestion of the rice and macaroni and their use to the body.

*Give credit for home work.* Encourage the children to cook at home and to report on their work. Give a certain number of points for cooking, cleaning, or personal hygiene, and post a list or record of points. This will do more to make the

family interested in the school than any amount of persuasion on the part of the teacher.

*Vary the dish from day to day.* If your children are particularly fond of cream soups, do not destroy their appetite for them by serving potato soup every day. Try one of the following in the same proportion: Green peas, cooked and mashed; corn, cooked and chopped fine; beets, cooked and chopped fine; spinach, cooked and chopped fine; celery, cooked and chopped fine; beans, baked and mashed; asparagus, cooked and chopped; tomatoes, cooked with one-half teaspoon of soda and passed through strainer; dried peas or lentils, soaked over night, cooked and mashed. Any of these may also be served with a thick, white sauce, as a creamed vegetable.

*Make the mealtime a social hour.* Sit down with your pupils and be served with them. Encourage happy conversation. No hour of the day affords the teacher a better chance to learn to know her pupils, and to get close to them through sympathy and understanding than does the noon hour.

*If you are not a first-class cook, it does not mean that you cannot teach a few simple dishes.* Send for the *Farmer's Bulletins*, published in your state, or by the Department of Agriculture, Washington, D. C. *Nutrition and Diet* by Emma Conley is very clear and easily understood. *Principles of Cooking* by the same author, gives many simple, reliable recipes.

**The balanced meal.** Throughout life our bodily and mental activity makes two demands: (a) material to build up and to repair wear and tear; (b) fuel to burn, making activity possible, heat being converted to energy or power to do work. The body, therefore, needs two distinct classes of foods: (a) proteins for building; (b) carbohydrates and fat to maintain temperature and to furnish energy for activity.

In addition to these certain mineral matter is essential, and vitamines must be furnished in fruits, vegetables, and milk. A meal, properly balanced, consists of food containing proteins, carbohydrates, and fat in the right proportions. The ratio established by Atwater of the tissue building to the energy-giving foods, is 1 to  $6\frac{1}{2}$ . This ratio we find in a bowl of cream, or potato soup served with croutons or wafers.

### An informational outline.

#### A. Getting Started

1. Plan at mothers' meeting: *a.* To obtain equipment.  
*b.* To care for equipment. *c.* To obtain kerosene.
2. Discuss at mothers' meeting: *a.* Time required.  
*b.* Division of work. *c.* Nature of food. *d.* Coöperation of mothers.
3. Ideas to stress at mothers' meeting: *a.* Need for coöperation. *b.* Better health. *c.* Good use of part of noon hour. *d.* Correlation with other subjects. *e.* Increased interest. *f.* Learning food facts. *g.* Better manners. *h.* Knowledge of cooking.

#### B. Managing the Enterprise

1. Equipment (See page 218 above)

2. Record of supplies

- a.* John — 3 lbs. carrots — 12¢
- b.* Mary —  $\frac{1}{8}$  lb. butter — 6¢
- c.* Jane — 2 qts. milk — 20¢, etc.

3. Duty schedule. (Note: pupils are numbered 1-10)

	<i>M</i>	<i>T</i>	<i>W</i>	<i>T</i>	<i>F</i>
<i>a.</i> Preparing food —	(1)	(2)	(3)	(4)	(5)
<i>b.</i> Cooking food —	(2)	(3)	(4)	(5)	(6)
<i>c.</i> Serving food —	(3)	(4)	(5)	(6)	(7)
<i>d.</i> Washing dishes —	(4)	(5)	(6)	(7)	(8)
<i>e.</i> Wiping dishes —	(5)	(6)	(7)	(8)	(9)
<i>f.</i> Replacing dishes —	(6)	(7)	(8)	(9)	(10)
<i>g.</i> Straightening up —	(7)	(8)	(9)	(10)	(1)

4. Five lessons. *a.* Potato soup, *b.* creamed carrots.  
*c.* cocoa, *d.* baked apples, *e.* creamed codfish

*C. Points to Remember*

1. Interest and coöperation indispensable
2. No need of interference with other work
3. No additional expense
4. Size of school no limitation
5. Varied benefits (physical, mental, moral) unquestionable

*D. Securing Food Supplies*

1. Make list a week in advance
2. Appoint a leader
3. Appoint a bookkeeper
4. Bookkeeper credits family or pupil
5. Portion costs charged to pupils
6. No hardships need result
7. Consideration of special needs of certain families

**Some good recipes.** (All measurements are level)

**I. COCOA (Serves 12)**

$\frac{1}{2}$ cup cocoa	2 cups boiling water
$\frac{1}{2}$ cup sugar	8 cups or 2 quarts milk

Mix cocoa and sugar well. Add the boiling water and boil from three to five minutes. This cooks the starch in the cocoa and makes it easier to digest. Add the milk and set in a pan of hot water to cook till ready to serve. This may be prepared before school and reheated in time to serve. If a scum forms on top, beat with egg beater.

**II. WHITE SAUCE (Serves 12)**

3 cups milk	6 tablespoons fat
6 tablespoons flour	$1\frac{1}{2}$ teaspoons salt
$\frac{1}{2}$ teaspoon paprika	

Scald the milk. Add the fat, salt, and flour; mix smooth with an equal amount of cold milk. Cook five minutes to break up the starch in the flour, stirring constantly to prevent lumping and burning. Season and serve. This recipe allows about 4 table-

spoons of sauce to each pupil. It may be used for baked potatoes, creamed potatoes, and creamed vegetables.

### III. POTATO SOUP (Serves 12)

7 medium sized potatoes	2 tablespoons fat
3 cups boiling water	4 teaspoons salt
1 small onion	4 tablespoons flour
6 cups or $1\frac{1}{2}$ quarts milk	1 teaspoon celery salt
	a bit of bayleaf

Peel potatoes, cut in small pieces, and cook till soft in 6 cups boiling salted water ( $1\frac{1}{2}$  teaspoons salt). Without draining mash the potatoes, add the fat, thinly sliced onion, and flour mixed smooth with equal parts of cold water, and boil five minutes to cook the starch in the flour. Stir constantly to prevent lumping and burning. Add the milk and bring to boiling point. Season and serve.

### IV. TOMATO SOUP (Serves 12)

1 quart can tomatoes	$\frac{1}{2}$ cup flour
$\frac{1}{2}$ teaspoon soda	6 cups, or $1\frac{1}{2}$ quarts, milk
$\frac{1}{4}$ teaspoon salt	$\frac{1}{4}$ teaspoon pepper
1 small onion	$\frac{1}{4}$ teaspoon celery salt
$\frac{1}{2}$ cup fat	bit of bayleaf

Heat tomatoes and mash well with fork or potato masher. Add soda, onion, salt, fat, and flour mixed with equal amounts of cold water, and boil five minutes to cook starch in flour. Stir constantly to prevent lumping and burning. Scald milk in double boiler and just before serving turn hot tomato mixture gradually into the hot milk, stirring all the time to prevent curdling. Season and serve immediately.

### V. OATMEAL (Serves 12)

2 cups oatmeal	8 cups boiling water	1 teaspoon salt
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Bring water and salt to boil in top of double boiler. Add oatmeal slowly and boil five minutes, directly over fire, stirring con-

stantly to prevent lumping and burning. Set over bottom part of double boiler and cook three hours;  $\frac{1}{2}$  cup washed raisins may be added the last half hour of cooking to give variety. Serve with warm milk and sugar. Oatmeal cooked in a fireless cooker is delicious.

**The lunch from home.** Various containers are used for the teacher's and the school child's lunch. Sometimes it is a box, which should be of odorless material, durable, light, easy to carry, and having means of ventilation. Tin boxes or pails with perforated lids are the best because they can be thoroughly scalded and aired, as they should be. Fiber boxes are easily soiled and cannot be cleaned. Home-made lunch containers can be used and thrown in the stove after using. Baskets are not desirable for obvious reasons. The folding lunch box of metal is used quite extensively.

Children can be taught to pack their own lunches, and such instruction can be given at school. Plain paper napkins are almost indispensable. The various parts of the lunch should be wrapped in oiled paper; liquid foods should be placed in tightly sealed jars. Children should be taught the importance of thoroughly cleansing and airing the lunch container every day.

A well-planned school lunch box should have one or more foods from each of the following lists:

*Bread sandwiches with:* American cheese; ground cheese mixed with bacon fat; cottage cheese and peanut butter; cottage cheese and chopped pickles; cold meat in thin slices; peanut butter; baked beans; bacon; bacon and cottage cheese; eggs, hard cooked, chopped, and seasoned; fish made into a paste and seasoned; lettuce or cress.

*Fruit or vegetables.* Raw fruit (apples, oranges); cooked fruit in jelly glass; baked apple; prunes; canned fruit; raw carrots; tomatoes; celery; radishes; vegetable salads in glass or jar; potato chips.

*Sweets.* Baked custard; cup cakes; cookies; dates; raisins and nuts; figs; prunes; sweet sandwiches of jam, jelly, marmalade, dates, or prunes.

The following are wholesome lunches:

- a. A ham sandwich, a jelly sandwich, an apple, and a small piece of plain cake.
- b. A cottage cheese sandwich, a brown-bread-and-butter sandwich, an orange, a cookie.
- c. A chicken sandwich, a graham-bread-and-butter sandwich, one-half cup of apple sauce.
- d. A chopped-egg sandwich, a bread-and-butter sandwich, one-half cup of stewed prunes.
- e. A peanut-butter sandwich, a jam sandwich, raisins, a cookie.
- f. A chopped-meat sandwich, a bread-and-butter sandwich, one-half cup canned fruit, gingerbread.

The following are offered by the United States Department of Agriculture as suggestions for well-balanced school lunches.

- a. Sandwiches with sliced tender meat for filling; baked apple, cookies, or a few lumps of sugar.
- b. Slices of meat loaf or bean loaf; bread-and-butter sandwiches; stewed fruit; small frosted cake.
- c. Crisp rolls, hollowed out and filled with chopped meat or fish, moistened and seasoned, or mixed with salad dressing; orange, apple, a mixture of sliced fruits, or berries; cake.
- d. Lettuce or celery sandwiches; one cup custard; jelly sandwiches.
- e. Cottage cheese and chopped-green-pepper sandwiches; or a pot of cream cheese with bread-and-butter sandwiches; peanut-butter sandwiches; fruit, cake.
- f. Hard-boiled eggs; crisp baking-powder biscuits; celery or radishes; brown-sugar or maple-sugar sandwiches.
- g. Bottle of milk; thin corn bread and butter; dates; apple.
- h. Raisin or nut bread with butter; cheese; oranges; maple sugar.
- i. Baked-bean-and-lettuce sandwiches; apple sauce; sweet chocolate.

**Teaching proper eating and table manners.** To get the full advantage of having the pupils eat together and under the eye of the teacher these points should be observed:

1. The room should be thoroughly aired before lunch is eaten.
2. The children should wash their hands before eating.
3. The desk should be cleared and a paper napkin or a piece of oilcloth spread for a tablecloth.
4. The lunch should be spread on the napkin and the lunch pail or box put under the desk, out of sight.
5. Lunch should be eaten in the right order, dessert last.
6. A fork or spoon should be used to carry the food to the mouth.
7. The children should remain in their seats until all have finished eating. This will prevent hasty eating.
8. The children should be permitted to drink water with their lunch, but they must not be allowed to swallow their food hurriedly by washing it down with water.
9. The children should be taught to eat slowly and quietly. Hasty eating causes indigestion and consequent ill health.
10. The conversation should be kept pleasant.
11. The teacher's manner of eating will be the standard for the table manners of the pupils, as children are very imitative. The teacher should prepare her lunch at her desk in the same manner as the pupils.

The lunch offers an excellent opportunity to overcome peculiar food habits, as the group spirit allows no personal preferences. Through the hot lunch many a child learns to like a nutritious food which he would not touch at home.

Neatness in general appearance, such as clean hands, and clean aprons for the cooks, should be encouraged. Simple aprons and holders can be made in the sewing class from toweling or flour sacks. The best standards of dishwashing should be carefully followed.<sup>1</sup>

<sup>1</sup> In preparing this chapter the author has borrowed freely both ideas and language from bulletins issued both by the United States and by his own state. Three former teachers of Domestic Science in the author's school, Miss Lillian Wingreene, Miss Katherine Staley, and Miss Beth Palmer, have furnished useful and usable material for the chapter. In company with the writer or some other county-normal teacher each of these teachers demonstrated the hot lunch in many rural schools of the home county.

*Reed age*  
REVIEW, TEST, AND PROBLEM EXERCISES

1. Make out a varied list of menus for a whole month of hot lunches for a rural school of twenty pupils, being sure that the dishes are attractive, appetizing, and nutritious.
2. Outline the daily course of procedure by which the hot lunch will be prepared and served.
3. Outline a talk which you will give to the mothers at a mothers' meeting to convince them of the advisability of hot lunches in your school.
4. In what ways will the hot lunch help to bring about a closer coöperation between the school and the home? Why is this highly desirable?
5. Name several suitable subjects for conversation while teacher and pupils are eating their dinner together.
6. Tell what the boys can do in promoting the hot lunch enterprise. Can a boy be taught to do any of the work done by the girls? Why should boys learn to do such things?
7. What may some board members say by way of opposition to your hot lunch proposition? Can you convince them that the plan is feasible and the right thing to do?
8. Tell specifically what you think it desirable to teach as to manners in connection with eating the noonday lunch. Write out concrete statements. You should get *The Noon Hour and the Noon Luncheon* by Miss Hale.
9. In your opinion what is the best way to secure the money to buy the equipment for hot lunches? Why do you favor your particular plan?
10. Enumerate several facts in geography which may be brought out through the hot lunch enterprise. What health lessons can be inculcated?

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Useful food charts may be obtained from the office of Home Economics, States Relations Service, Department of Agriculture, Washington, D. C., for one dollar. For list of U. S. Government Bulletins, see Bureau of Education, Home Economics Circular, No. 5. The Rural teacher should write to the Superintendent of Documents, Washington, D. C., and ask for a list of bulletins on the hot lunch in rural schools. Find, also, the bulletins published in your own state on this subject. State Superintendents, State Normal Schools, and State Universities issue valuable publications on this as well as many other subjects.

## CHAPTER XIII

### COÖPERATION OF PARENT AND TEACHER

**Need for coöperation.** If democracy is to continue and have increasing meaning and value for the ordinary citizen, our schools must inculcate the principles and promote the practice of coöperation. The social aim and method need constant stressing. In the relations which necessarily exist between parent and teacher there is repeated opportunity for manifesting the spirit and the art of coöperation. The child is the common interest of both parent and teacher; the welfare of the child should be held up as the great objective. Modern business and industrial life is carried forward successfully only on the basis of coöperation. The men engaged in our great productive, mercantile, and financial enterprises have long understood the value of coöperative methods. The school must make much larger use of these methods of the business man, if it is to minister to the social and economic demands of our day. In rural communities the relative lack of opportunities for social and business contacts, as compared with urban groups, makes for a type of individualistic thinking and acting which is not conducive to community welfare. When the individual senses the common need he is in a better position to lend a hand in promoting common interests. Coöperation requires both ideas and thinking; it likewise involves the spirit and the ideal of service. Both parent and teacher need to be actuated by a public or community spirit in which selfish interests are submerged for the good of all.

**The function of the school.** "The school is an institution of society, supplementary to the home, for the training of children."<sup>1</sup> That seems to be a complete and adequate definition, and it should be noted that the school is *supplementary* to the home. The home comes first, but due to the fact that parents have neither the time nor the ability to educate their children in all ways, the school has come into existence. The parent hands the child over to the teacher for a part of the time, but he does not surrender his own prerogatives as parent. The wise teacher recognizes the rights of the parent and does not too strenuously insist upon his own personal or teacher rights.

The function of the school is to train boys and girls for participating citizenship in a democracy. Effective citizenship implies correct ideas, suitable ideals, and necessary habits. Boys and girls are to be taught and trained for social efficiency, which means the inculcation and development of attitudes, desires, interests, and appreciations, the acquisition of abilities, skills, and dexterities, as well as the items of knowledge which are usually found in textbooks. Such knowledge is of course necessary, but habits of effective response to actual problem situations is of far greater importance.

It is likewise the function of the school to promote health in all possible ways. It should also develop a type of character, or personality, which will be adequate when the individual must meet the responsibilities and discharge the duties of social and civic life. Further, the school should be the means of giving the child the tools, such as power to read and love of good reading, by which he will be able to continue his education throughout life. A rural school may also render genuine and valuable service to the older people of the

<sup>1</sup> SALISBURY, ALBERT — *School Management*; Row, Peterson and Company.

community through the library, through community center gatherings, and in other similar ways.

**The evil of indifference.** Indifference on the part of parents is very common ; in fact, it is the rule. Such lack of interest, however, is not always the fault of the parent, for many times a poor school and teacher have so discouraged the parent that he loses an interest which he would otherwise naturally manifest. It has often happened that results which parents had hoped for in their children have not been forthcoming. There have been weaknesses and deficiencies in reading, language, arithmetic, and in character training. Children often lack interest in reading ; they quite commonly cannot write decent letters ; and they cannot be trusted to add a column of figures correctly. So parents lose heart and blame the school. But, worst of all, they lose their interest in the school, become indifferent, fail to visit the school, and refuse to coöperate with the teacher.

When parents lose interest they cease to keep in touch with the teacher ; perhaps they take sides with the child against the teacher. Such a condition is unfortunate and damaging ; it may have a serious influence upon the discipline of the school. Indifference of parents can only work hardship to the school and interfere with its welfare. Every effort, then, should be made to overcome such a lack of interest. The teacher can do much by making her work as interesting, effective, and practical as possible. The teacher who keeps the home and the parent in mind will often find ways to interest parents. Adequate financial support will usually follow interest and moral support.

**The interested parent.** When the parent is interested in the school the teacher will find her work going forward more easily and more successfully. No effort will meet with greater rewards than that directed to arousing and maintain-

ing a genuine interest on the part of parents. When the mother is really concerned about the affairs of the school, she will visit the school of her own accord, not once only, but several times during the year. Not only will the interested mother visit the school frequently; she will also seek means to coöperate with the teacher and will attend mothers' meetings and other gatherings at the schoolhouse.

When a father is really concerned about the welfare of the school and desires to have a good school for his own and his neighbor's children, he will favor adequate taxes, and when the annual meeting occurs he will lend his support to a fair, equitable budget for the ensuing year. One of the serious problems in many schools is that of attendance, but when the parent and teacher are thinking and working together, this problem will not be so difficult a one, for the interested parent will make an effort to have the children in school every day and on time.

**Selling education to the public.** The average citizen and taxpayer is not well informed as to school conditions and needs. He simply does not know a great many things which it would be very useful for him to know. Were he better posted concerning the aims and policies of those who manage the schools, he would not be so inclined to criticize; for it is a fact that any reasonable person can be led to see and to understand the great work being done by the public schools and the importance of spending adequate sums of money in order to secure results. It is the province of those who administer public education — boards, superintendents, principals, and teachers — to see to it that the patrons and taxpayers and the public in general are duly informed concerning the various phases of the work of the schools. A continuous propaganda of judicious, well-directed advertising of the cause of education and of the

schools is greatly needed ; it should be carried on systematically and unremittingly.

Superintendent Tobin, of Cook County, Illinois, believes in publicity ; in his districts outside of Chicago he has used various means to acquaint people with the work of the rural schools. A good deal of money is spent in this way, and it is an investment that pays good dividends in the increased interest and support of the people. The most recent method used is the broadcasting of a variety of information over the radio. It is entirely possible for the rural teacher to have her school issue a monthly or semimonthly school paper, which can be printed on a hectograph. If this paper goes into all of the homes it can be made the means of informing patrons and taxpayers concerning the work and the needs of the school. A great deal of prejudice is born of ignorance, and the remedy is honest broadcasting of facts. Most country newspapers are glad to carry school items once each week. A rural teacher can make profitable use of such an opportunity. One can use both school papers and the press with much satisfaction, interest, and profit. School exhibits or a school fair once or twice a year are also good means of advertising the school ; this method is becoming increasingly common and effective.

**Securing money for the schools.** One city superintendent of schools who is exceptionally successful in securing co-operation and money for school purposes, in whose city a magnificent million-dollar high school had been erected, is yet inclined to stress moral support rather than merely financial. He implies that money will be forthcoming if people can be led to understand the needs of the schools. This superintendent is a good advertiser, who keeps the schools constantly before the public. The people are not allowed to forget the cause of education or its significance in his city.

Money is needed to operate schools as they should be operated, and it frequently happens that all too little money is spent for education in rural districts. Many times not enough taxes are levied at the annual meeting, and a spirit of parsimony is all too evident. A program of unwise, skimping economy robs the children of their educational heritage. Here is a great opportunity for teacher leadership and for a wise campaign of management on the part of the county superintendent.

Undoubtedly most of the money to operate the schools should be paid in legitimate taxes, levied and raised through the usual channels. However, teachers are often able to secure funds to buy pictures, an organ, a flag, a phonograph and records, and other equipment of similar nature through box socials and entertainments of various sorts. Desks, chairs, globes, and maps should not be bought in this way, however. Sums ranging from \$25.00 to \$100.00 have been earned by teacher and pupils. People will have the kind of schools they want ; when the need is adequately realized the money will be raised. It is the teacher's function to disseminate correct ideas, to suggest ideals of life and living, to help mold public opinion.

**Parent-teacher organizations.** Some years ago a parent-teacher association was organized one evening in a rural school ; the organization is still in a thriving condition. The program for the evening began at eight o'clock. There was a good representation from nearly all of the homes of the district. All the children of the school were there, and they presented a program of singing and speaking under the teacher's direction. This lasted about thirty minutes. Then the rest of the evening was given over to the organization of the club and the serving of refreshments at the close. The speaker of the evening gave a twenty-minute talk in

which he set forth the values of community-center activities and stressed the need for close coöperation between school and home. After this preliminary talk the people were ready to effect an organization. For this purpose a constitution had been secured from the extension department of the state university. This served as a guide in the selection of officers and in the naming of the necessary committees. One of the difficulties was to secure the proper persons to serve in the various capacities; the people were timid in making nominations. However the leader tried to make the situation as easy as possible by repeated explanations, and finally the officers were elected, and the needful machinery effected and set in motion.

In order to assist teachers and others in organizing parent-teacher associations, the following model constitution is given. This constitution is the one found in the forty-page booklet issued by the National Congress of Mothers and Parent-Teacher Associations, Washington, D. C. :

*Article I — Name*

This society shall be called the Parent-Teacher Association of the Jefferson School.

*Article II — Purpose*

Its object shall be to study the welfare of the child in home, school, and community; to create a better mutual understanding between parents and teachers; and to secure their coöperation in all work for the interest of the children.

*Article III — Membership*

Anyone interested in the purpose for which the club is organized is qualified for membership.

*Article IV — Officers*

The officers of this Association shall be a President, a Vice-President, a Secretary, and a Treasurer, elected annually at the first meeting of the year.

*Article V — Meetings*

Regular meetings of the Association shall be held on the first Tuesday afternoon of each month. Special meetings may be called by order of the President upon written request of any five members.

*Article VI — Amendments*

This constitution may be amended at any annual meeting or by unanimous consent at any regular meeting when previous notice has been given.

*Article VII — Duties of Officers*

*Section 1* — The President shall preside at all meetings; he shall appoint the chairmen of standing committees and be a member of the same and shall in all possible ways promote the growth and well-being of the Association.

*Section 2* — The Vice-President shall preside in the absence of the President, and in general assist him in his work.

*Section 3* — The Secretary shall keep an accurate account of the proceedings of each meeting; be prepared at any meeting to refer to the minutes of previous meetings; read communications; send out notices of meetings; furnish the names of members of committees to their respective chairmen; file all important letters; keep the roll; and, with the President, sign all warrants.

*Section 4* — The Treasurer shall receive all money, and pay out the same on order of the President and Secretary; keep an account of all receipts and expenditures and render a monthly report.

*Article VIII — Order of Business*

1. Roll Call	5. Reports of Standing Committees
2. Minutes	6. Reports of Special Committees
3. Program of the Day	7. Unfinished Business
4. Reports of Officers	8. New Business

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In the by-laws provide for dues and committees. The dues should be small; the following standing committees will answer most purposes: *program, membership, press, social*.

*Suggested Topics for Meetings.* 1. Physical care of the child in the home ✓

2. Special physical needs of school children
3. What constitutes a good mother?
4. What constitutes a good father?
5. Value of music in the home
6. Games to interest children
7. Coöperation of teacher and parents
8. Importance of good reading matter
9. Influence of good stories on the child's character
10. Movies, the home, and the school
11. Balanced rations for the growing child
12. Playground supervision
13. Undernourished children
14. Parents who help the teacher
15. The school as a community center
16. Coöperation and the hot lunch
17. Mothers' meetings
18. Overcoming the tardiness evil
19. Regularity of attendance
20. School sanitation.

The above list of topics is suggestive only. There is almost no end to the number of interesting and useful subjects which may be considered. The teacher will secure valuable information by writing to the United States Bureau of Education, Washington, D. C. The best way is to prepare all of the programs for the year in advance, naming all the topics, the persons who will discuss them, and the dates on which they will appear.

**Reciprocal relationships.** The parent is the child's first teacher; when the child is sent to school the parent reserves some of the rights of a teacher and all of the rights of a parent. The teacher does well to recognize the rights of parent and home. There is no sharp dividing line between the jurisdiction and prerogative of parent and teacher. The main thing is a good spirit and the right purpose on the part of both parties. Quite naturally almost any parent is anxious to

have his boy or girl do as well as possible in school, but he does not turn the child over to the school without some misgivings and without reserving the privilege of controlling the situation to some extent. Every wise teacher takes the parent into account.

Although the teacher does not supersede the parent in all details, still he does possess quite clearly defined rights and duties. The teacher must do the teaching, not the parent. The teacher determines subject matter and its method of presentation. Moreover, the teacher represents the state and is thus in duty bound to carry out the course of study and the directions of superior school officials. The teacher has charge of the whole child — body, mind, and spirit. It is the teacher's duty to take note of and to plan for physical health, mental training, and moral education. She is *in loco parentis*, and as such, she may administer proper punishments. The teacher is both the agent of the state and the representative of the parent and the home. When it is a question of concurrent jurisdiction, as for example the conduct of children going to and from school, the parent and teacher share in authority. There should be a complete understanding and a spirit of tolerance and good will. The teacher should seek opportunities to get acquainted with parents before trouble arises. A basis of friendly acquaintance and association will do much to help solve the hardest problem.

**Coöperation in teaching.<sup>1</sup>** In the actual work of teaching there is ample opportunity for teacher and parent to coöperate. The best teachers are those who stress the life of the

<sup>1</sup> The material in this topic has, with modifications, been taken from Bulletin No. 18, entitled *Social and Civic Center Work in Rural Communities*, issued some years ago by the Wisconsin State Department of Education, by permission of Superintendent John Callahan.

community and who seek means for connecting the work of the school with the experiences of the people of the district.

In arithmetic, farm problems can be used much more than is common. The children should take actual measurements and from these compute areas, contents, and costs. Let the pupils measure bins, granaries, hay stacks, and silos. Give them practice in estimating. After an estimate has been made the actual contents may be computed. Estimate acres in the garden, the orchard, and the pasture; then find the exact areas. Compute the amount and the cost of plastering and painting for real buildings and rooms. Find the amounts of actual bills and teach a simple form of keeping accounts. In this way children will not only be taught arithmetic, but incidentally they will acquire much useful information that is absolutely necessary in order to work out the ordinary everyday problems of life. This information will also do much to develop in the children that faculty known as *common sense*.

In civics, teach the primary election, general election, the town meeting, and the court sessions, when these are of interest in the community. New laws that are enacted from time to time dealing with important community interests should be taken up and discussed.

The history of the school district is a useful and interesting topic. As a rule, however, it cannot be studied until the teacher has been in the district for some time and becomes somewhat acquainted with the people. The following are some of the questions that may be asked by the teacher for the children to ask at home: Who were some of the first settlers in this community? When did they come? Where did they settle? What was the condition of the country at that time? Where was the first clearing made? What

kind of buildings did the first settlers erect? Are any of those old buildings still standing? Where was the first schoolhouse built? What kind of a building was it? Is it still in existence? What were the first churches and public buildings? Are there any former soldiers in the district? Who? In what war did they take part? Were they in any battles? If so, where? Were any of them wounded? From what country or state did the people in this community come? Name the various countries or states represented, such as Germany, Ireland, Norway, New England, New York State. Here the pupils may make a map, and indicate by different marks or colors the various nationalities that make up the district.

The opportunities for concrete teaching and for the school and home to work together are abundantly exemplified in local or community geography. In order to teach the geography of the district the teacher must do some real exploring on her own account. One of the best means is for the teacher and pupils to make a map of the district on as large a scale as practicable. Do not hurry this map, but take several weeks or months, if necessary. It should be done as accurately as possible, showing the roads, areas of farms and fields, location of the schoolhouse, quarry, creamery, town hall, and large wooded tracts, if any. Pupils will secure this needed information at home from day to day. Locate the church, the village, the homes, the residences of school and town officers. The map should be done carefully to scale. After the first map is made by teacher and pupils, each upper grade pupil should make one for which he or she will receive credit in the county examination.

In the work in agriculture and nature study there is obviously a rich field for coöperation of home and school. We have only to mention such subjects as birds, weeds, corn,

insects, grains, farm animals, the silo, to see that here is a type of subject matter which lends itself to united effort. One of the most profitable undertakings of a rural teacher and her upper grade pupils is a complete social and economic survey of the school district. Directions for making such a survey may be secured by writing to the Bureau of Education, Washington, D. C.

**The problem of attendance.** State education cannot be carried on successfully unless compulsory measures for securing regularity of attendance are enforced. But in enforcing such laws the home life needs consideration. If a child is not in school, he may not be to blame and the mother may not be at fault. The problem of absence is one to investigate carefully, sympathetically, and judiciously. The teacher needs to use much patience and fully as much tact and common sense. Irregularity of attendance is an evil, and the teacher must use all possible means to combat it. What can a teacher do? Here are a few suggestions:

*A good school.* If the school is good, if the work is interesting, if the teacher has a pleasing personality, there will be a strong incentive for pupils to go to school regularly. They will try, and the parents will try, to coöperate with the teacher and the school if the school is an attractive place.

*Personal interest.* A teacher can do much if she will show pupils and parents that she is genuinely interested in the progress of each child. Sympathetic inquiries will secure the good will of most parents. They will see that the teacher is a kind friend, actuated by broad and generous motives.

*Artificial incentives.* As a temporary expedient, at any rate, a teacher may be justified in using a system of rewards or privileges to encourage regularity of attendance. Many children will work for merit cards or certificates of attendance

signed by the county superintendent. In some places an honor roll is printed in the local paper. Sometimes teachers use honor rolls on large sheets of paper with stars of various sorts — gold and silver. Sometimes an earlier dismissal on the last Friday of the month, if no one is absent, will secure results. This last means must, of course, be sanctioned by the board.

*Interest parents.* One of the things for the teacher to mention at the mothers' meeting is the importance of regularity, if she can do it gracefully and tactfully. Many a parent does not realize the great need for regularity in attendance. It will pay a teacher to go into some detail to explain just why being absent hurts the individual and hurts the school. Most parents are reasonable if approached in the right way.

*Individual cases.* The teacher needs to take note of every case of absence. She must be concerned about it and take judicious measures to find out the underlying causes. Sometimes a teacher may find it wise to visit the home for a friendly talk with the mother. In no case should the interview be anything but friendly. If the teacher cannot manifest a kind, charitable spirit, she had better not seek an interview with the parent.

*Morning exercises.* It often happens that a teacher can make the opening exercises so attractive that every child will wish to be there on time. The successful rural teacher uses morning exercises as an opportunity to interest both pupils and parents.

*Public programs.* Some teachers are able to interest both pupils and parents in the work of the school through the use of educational programs, in which the everyday work of the school has a large and important place. If all the pupils can have a share in preparing and presenting a good program

of the right kind, it will interest them in the school and help to secure regularity of attendance.

**Home work and school credit.** The teacher should constantly keep in mind that the school cannot give a complete education. The school is but one great factor in the development of the child. It is in the home that much of the world's work is being done, and as soon as possible the child should be encouraged to take part in the home activities. In many schools there has grown up the practice of giving school credits for the performance of home duties. This brings the home and the school closer together. It may not be possible to work out an extended system of this kind, but the great underlying principle should ever be kept in mind. The child should be made to feel that when he is helping the parent he is doing something that is equally as fundamental to his education as the work that he does in school. To train the child to work and to give him a desire to take part in the work of the home is one of the great needs of the present day.<sup>1</sup>

Below is printed a sample list of *Home Credits*. The testimony of parents is that it helps them and their children, because it makes the children like to do things which they otherwise may dislike. Teachers should explain this work fully to their pupils and as far as possible to parents. This would be a good topic for a mothers' or parents' meeting. The teacher should carefully plan a talk on the subject, so that she can present it in an attractive manner. The interest which children will take in such work will help to make the teacher's work more interesting and the discipline easier.

Similarly, out-of-school instruction — piano lessons, violin lessons, special art instruction — may also be credited to a child's educational account. Is there any good reason why it should not be so credited? In some cases the special instructor has been glad to give a rating of his pupil's work.

<sup>1</sup> From the Bulletin mentioned on page 244.

(Pupil's Name)

## Work and Credits for week ending.....

NOTE: Fill out this card and return to the teacher on Monday morning.

WORK	CREDITS
Building fire in morning . . . . .	1
Milking cow . . . . .	1
Cleaning out barn . . . . .	2
Turning cream separator . . . . .	2
Currying a horse . . . . .	2
Gathering the eggs . . . . .	1
Feeding and watering the chickens . . . . .	1
Feeding the hogs . . . . .	2
Feeding and bedding a team . . . . .	2
Feeding two cows . . . . .	1
Churning butter . . . . .	2
Making butter after it is churned . . . . .	2
Blackening a stove . . . . .	2
Making and baking bread . . . . .	10
Making biscuits . . . . .	2
Getting an entire meal . . . . .	6
Setting the table, only . . . . .	2
Washing and wiping the dishes . . . . .	6
Wiping the dishes . . . . .	3
Sweeping one room . . . . .	1
Dusting furniture and rugs, one room . . . . .	2
Scrubbing a floor . . . . .	4
Making a bed . . . . .	1
Washing, ironing, and starching one's own clothes worn at school . . . . .	20
Bathing . . . . .	6
Practicing music lesson (30 minutes) . . . . .	6
Clean hands, face, and nails at school (teacher to judge)	1 to 4
Splitting and carrying in kindling . . . . .	1
Splitting and carrying in wood (day's supply) . . . . .	4

WORK	CREDITS
Carrying coal (two scuttles) . . . . .	1
Brushing teeth . . . . .	1
Retiring before nine o'clock . . . . .	1
Sleeping with window open . . . . .	1
Washing and drying cream separator . . . . .	2
Pumping and carrying in water (two buckets) . . . . .	1
Driving up cows or horses . . . . .	1
Cleaning a lamp . . . . .	1
Making or baking a pie or cake . . . . .	2
Total . . . . .	<hr/>

(Parent's Signature)

**REVIEW, TEST, AND PROBLEM EXERCISES**

1. State five good reasons why coöperation between parent and teacher is necessary and important.
2. Explain the meaning of the author's statement: "The social aim and method need constant stressing."
3. How will you get parents to visit your school?
4. List all the means you can think of by which a rural teacher can acquaint her patrons with the work of her school and get them interested in the general cause of education.
5. Make out a preferred budget for a rural school of twenty pupils for the year, including teacher's salary, fuel, supplies, repairs, and books. Assume the total amounts to \$1500.
6. Write out a dozen directions and suggestions for carrying out a successful box social conducted for the purpose of raising money for the school.
7. Find out the assessed valuation of all the property in the district where you are teaching, and what the rate is for local, or district, school taxes, for county school tax, and for state school tax. You can then compute John Brown's total school tax on his assessed valuation of \$35,000.
8. If you were to organize a parent-teacher association in your district, what initial steps would be necessary? State the first five things you would need to do, in order of time.
9. To what extent is the teacher *in loco parentis*, and to what extent is

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she not? How about cleanliness of person and clothing? What of manners and morals?

10. Make a list of the birds, trees, weeds, and wild animals found in your district with the coöperation of the pupils and of the parents.

11. How can you secure regularity and punctuality in attendance? Write a five-hundred-word paper in answering the question — such a discussion as may be read at a teachers' meeting.

## CHAPTER XIV

### MEETINGS AND PROGRAMS

**Why get together?** If the principle of democratic government is to prevail in America, people must be trained to the idea of organization, coöperation, and the free discussion of their common problems. Formerly the country schoolhouse was more frequently used than to-day for gatherings of all sorts — the debating club, the lyceum, the old spell-downs. Along with this decrease in the use of the rural schoolhouse for social and civic gatherings, there has been an increasing tendency and a truly alarming one for country people, especially the younger people, to go to town or city for their social recreation and amusements, many of which are artificial and more or less demoralizing.

It is only within comparatively recent years that various agencies have been set in operation in the rural community to give the rural population, old and young, an opportunity for expression and for growth and development through clubs and associations of various sorts. It should be stated with emphasis that our young people always have found and always will find some way, legitimate or otherwise, in which to express their social instincts. If natural, wholesome means are not provided by those in positions of leadership, then our young folks will take matters into their own hands for better or for worse — often for the latter.

There is the greatest need for the development of the neighborhood spirit, and this can come about only through a well organized neighborhood. The task of leadership often falls to the teacher, no doubt rightly so. It is to the

rural school that we must look for the initial steps in this great coöperative enterprise, this nation's task of training all our rural people for real participation in our great scheme of government. If the teacher does not start things, nothing will likely be started. The result may be a rundown neighborhood, the opposite of an organized, active, coöperating community. Many teachers shrink from the task of starting a neighborhood club or a parent-teacher association. However, the job is not nearly so formidable as it looks. If the teacher will only study this problem, she will soon become enthusiastic; she will find people in her district who are capable of maintaining the organization.

The purpose of this chapter is to point out some ways and means of accomplishing concrete, tangible results. It will be impossible in one chapter to do more than make a few suggestions, mostly in the way of telling teachers what to look for and where to find material.

**Kinds of meetings.** At the present time there are all sorts of organizations in more or less active operation throughout the country. Some of these are for young people especially; others are for the older members of the community. Community clubs are now very common and the parent-teacher association has come to have a large and influential place in many rural school districts. These various organizations have different aims, most of which may be summed up in the terms: *economic*, *educational*, and *social*. The early lyceums, debating societies, and singing schools were largely educational and social in their character and operation. In later years there has grown up a great variety of clubs which have had for their dominant aim the improvement of the economic condition of the farmer. The Patrons of Husbandry, popularly known as the Grange, was at one time a very thriving agricultural society and still is active

in some sections. It has a distinctly social as well as an economic purpose. In later years the American Society of Equity has had a most flourishing growth and a nation-wide increase of local organizations. Country life associations have had a vigorous existence in many states, and many times the district or neighborhood associations have been united into a strong county organization. A recent meeting of a community club, which has now been in active operation for six years, was held in one of the large houses of the neighborhood. Some six or seven rural teachers were present; there was a large attendance of farmers, their wives, and others from a territory having a four-mile radius. The program was educational; but it was also noted that the farmers were buying their twine and their coal through coöperative methods — an economic phase of the organization.

**How to organize.** It is very important that no mistake be made at the start. If the first meeting is a failure it will be very difficult later to overcome the bad effects of such a meeting. No effort, therefore, should be spared to make the first meeting a success.

Many times a community club may well grow out of a simple school program or evening entertainment. If the teacher plans to start in this way she should make sure that this school program is a good one. All the pupils should take part. At such a gathering the teacher should make a special effort to meet the parents and others and to get acquainted.

When the teacher has had two or three such evening school programs the time may be ripe to get some of the older people to take part in some way. After several people of the district have assisted the teacher and the school in putting on a successful entertainment, it will not be difficult to effect an organization of the older people.

Talk with several people about the advisability of forming a community club of some sort. In repeated conversations with patrons and others the teacher will be securing that coöperation which is necessary to make the enterprise go. It often helps to have some member of a successful school organization come to tell how to go about it and to answer any questions which may arise. If this person shows genuine interest the enthusiasm will prove contagious.

Call a meeting of all who should be members of the new organization. Previous to this first meeting the teacher has paved the way to a sympathetic conference by her conversations with various people of the district. At this meeting all details will be fully explained and a final decision made to launch the new enterprise. Do not be discouraged if everyone should not show interest in the proceedings. Sometimes big results come out of small beginnings.

At the first meeting the teacher, whom we are assuming is acting as leader, will give a short talk in which she will carefully state the purpose of the proposed plan and show its chief benefits to the people and the community. It is very necessary that the teacher know exactly what to say and that she present it clearly. This requires thoughtful preparation. All the details for this first meeting should be set down on paper in order. This will tend to avoid embarrassing mistakes and breaks in the program.

At this first meeting it is well to have a brief program which will precede the organization proceedings. As a part of this program there may be an outside speaker who should not talk more than fifteen or twenty minutes. This speaker may be the county superintendent, the principal of the county normal, a high school principal, or possibly some one from the state superintendent's office, or from a state normal school. Perhaps the president of some neigh-

borhood club or association can give a short, inspirational talk.

The next step is to elect officers, whose duty it will be to get a program ready for the next meeting and to present a constitution for the club to vote upon. The necessary officers are a president, vice-president, secretary, and treasurer. Four committees will meet the requirements, as follows: executive committee, improvement committee, program committee, publicity committee. See constitution, page 260.

When the constitution is adopted and the committees are appointed, the machinery has been set in operation for a successful organization. It will now be necessary, however, to have some leader, properly the president of the club, who will now see that the people do their duty on committees and in presenting programs. It is usually best for the teacher not to act as the president. She can be of greater service in an advisory capacity; moreover, the important thing is to train the people of the community to assume responsibility and to make the enterprise a success of their own initiative and coöperation.

#### AN OUTLINE OF PURPOSES AND PROCEDURES<sup>1</sup>

*Purposes.* *a.* To get parents interested in *school* work in particular; to interest them in educational work in general; *b.* to furnish an opportunity for the children and older people to develop their intellectual powers; *c.* to furnish an opportunity for developing power of expression; *d.* to furnish an opportunity for disseminating useful information and exchanging ideas; *e.* to develop the idea of coöperation; *f.* to provide recreation for the people; *g.* in general, to give people an opportunity to develop

<sup>1</sup> This outline is the work of Walter E. Larson, formerly state supervisor of rural schools in Wisconsin, who has generously permitted the author to use it.

their mental and social powers, broaden their interests, elevate their ideals, and thus make the community the best possible place to live.

*Kinds of gatherings.* *a.* The school entertainment. This may be held in the afternoon or in the evening, depending upon circumstances. *b.* Programs in which both children and older people take part. These are usually held in the evening. *c.* Farmers' clubs. In these meetings topics of interest to the grown-up people are presented by the members of the community and outsiders. Children often contribute to these programs, also. Frequently special meetings are held which are attended only by adults. *d.* Special occasions, such as farmers' institutes, Fourth of July celebrations, closing day of school, Memorial Day exercises.

*Methods.* *a.* The beginning of the movement is very often the school program. *b.* After a little while grown-up people in the community take part. *c.* Occasionally an outside speaker may be secured such as the county superintendent, a county normal principal, a high school principal, a teacher in another district, a person who has made a specialty of some line of work. *d.* A permanent organization may be effected, such as a literary society, a farmers' club, or something similar.

*General suggestions.* *a.* Study the material within your reach. The resources that we may draw upon for this kind of work are greater than we usually suppose. *b.* Do not start the movement on too extensive a scale. Begin modestly. Plan things carefully. *c.* Do not have too long or too difficult programs. Better have a short meeting and have every one go home satisfied than to draw the meeting out and have people tired. *d.* Remember that the purpose you have in mind will largely determine the character of the work. The primary purpose should be the development of the community, not the advertising of outside individuals. When such persons are brought in, it should be for the purpose of giving the local people suggestions or inspiration for their own work. *e.* Do not have too many meetings. *f.* Make use of the school library and any other library which is accessible. *g.* Among the persons that may be asked to help are the following: teachers,

principals, superintendents, county officers, other officers, members of the school board, successful farmers who have become specialists in certain lines of work (such as fruit growing, poultry raising, dairying), physicians, veterans of the Civil War, and American Legion men. *h.* Get as many local people to take part as possible. *i.* In your school programs get every child to do something, if it be but to take part in a drill.

*Programs.* For your school programs you can draw upon your regular school work. A ten-minute exercise with a reading class well prepared is a most entertaining feature. Tell the class some time before your program is to be held, from two to four weeks, perhaps, that each pupil will read one of the lessons between certain pages, including from 20 to 40 pages. The result will be that the children will do their best to master these pages and thus be able to read with expression. Much of the language work can also be used on the program.

Spelling exercises may be included. Tell the children of a certain group that they will spell for ten or fifteen minutes, taking any of the words between certain pages. All of them will try to stand up during the whole period. The result will be a mastery of all the words on those pages.

Rapid arithmetic by the pupils at the blackboard is very interesting, provided there is sufficient room. The writing of numbers and rapid easy work in the four fundamentals may profitably be taken up for ten or fifteen minutes. Special problems may also be used, such as those relating to land or lumber. Do not include too much at one time.

As a result of this work, the people will get an idea of what the school is really doing. People will become interested in the school work of the children. Occasionally you may wish to have a program for a special occasion, such as Washington's Birthday. Then you will want special selections. Many of these, however, can be worked in with the regular reading and language exercises of the school.

Among the topics that may be profitably presented to the meeting and discussed are the following: (1) Agricultural topics,

such as the selection of seed corn, testing seed for germination, how to treat potato blight, and marketing farm produce. (2) Home topics, such as the food value of fruit, potatoes, or meat; how to treat a cold; home conveniences. (3) Civic topics, such as the parcel post, the income tax, the single tax, the initiative and referendum, and bills before the legislature. (4) Educational topics, such as consolidation, the relation of the home to the school, the home as a factor in education, current events, and local government.

### CONSTITUTION FOR A NEIGHBORHOOD IMPROVEMENT CLUB<sup>1</sup>

(College Extension Service, Manhattan, Kansas)

#### PREAMBLE

We, the citizens residing in the . . . . . neighborhood, believing that this community deserves the best economic, civic, health, social, moral, and educational conditions that it is possible for its citizens to bring about; and further, believing that a better understanding of the fundamental problems of community life and a wider acquaintance can be accomplished by open and free discussion of all neighborhood questions, do therefore constitute ourselves a Neighborhood Improvement Club.

For the better government of the same, we do adopt the following constitution:

#### ARTICLE I — *Name*

The name of this Club shall be the Neighborhood Improvement Club of . . . . .

#### ARTICLE II — *Object*

The object of this organization shall be the bringing about of better economic, civic, social, health, moral, and educational conditions in this community by developing an intelligent public spirit through the open presentation and free discussion of all

<sup>1</sup> Permission to print this constitution has been given by the Extension Department of the State Agricultural School, Manhattan, Kansas.

questions and activities which promote the welfare of this community.

### ARTICLE III — *Membership*

SECTION 1. Every person . . . years of age or over, living in the . . . neighborhood, is an associate member of this Neighborhood Improvement Club by the fact of his or her residence in this neighborhood.

SECTION 2. Any person eighteen years of age and over is eligible to become an active member of this Club upon giving his or her name to any member of the Executive Committee.

### ARTICLE IV — *Officers and Elections*

SECTION 1. There shall be the following officers: President, First, Second, Third, and Fourth Vice-Presidents, Secretary, and Treasurer.

SECTION 2. All the officers shall be elected at the annual meeting of the Club which shall be held on . . . to serve for a term of one year each. Only active members will be allowed to vote for officers and only active members are eligible to office.

### ARTICLE V — *Duties of Officers*

SECTION 1. *President:* It shall be the duty of the President to preside at all meetings of the Club and to serve as chairman of the Executive Committee of the Club.

SECTION 2. *First Vice-President:* It shall be the duty of the First Vice-President to preside at the meetings of the Club in the absence or at the request of the President.

SECTION 3. *Second Vice-President:* It shall be the duty of the Second Vice-President to serve as chairman of the Program Committee of the Club.

SECTION 4. *Third Vice-President:* It shall be the duty of the Third Vice-President to serve as chairman of the Improvement Committee of the Club.

SECTION 5. *Fourth Vice-President:* It shall be the duty of the

Fourth Vice-President to serve as chairman of the Publicity Committee of the Club.

SECTION 6. *Secretary*: It shall be the duty of the Secretary to keep the minutes of the proceedings of the Club ; to keep a list of active members ; to receive names of new members ; to carry on the correspondence of the Club ; and to fulfill such other duties as usually pertain to this office.

SECTION 7. *Treasurer*: It shall be the duty of the Treasurer to collect and disburse the money of the Club ; and to keep a record of all money received, spent, and on hand, and to report upon the state of the treasury at the annual meeting or whenever called upon to do so.

#### ARTICLE VI — Committees

SECTION 1. *Executive Committee*: The Executive Committee shall consist of the elected officers of the Club. It shall be the duty of this Committee to confer upon questions regarding the welfare of the Club ; to consider and recommend matters of importance to the Club ; and in unusual matters requiring haste, to act for the Club.

SECTION 2. *Improvement Committee*: The Improvement Committee shall consist of the Third Vice-President and four other members chosen by him. It shall be the duty of this committee to investigate all questions of local improvement, which may be referred to it by the Club ; also, to suggest matters upon which the Club should act. It shall also be the duty of this Committee to make or supervise the making of all surveys suggested under "Methods of Work."

SECTION 3. *Program Committee*: The Program Committee shall consist of the Second Vice-President and two other members chosen by him. It shall be the duty of this Committee to arrange programs for all of the meetings of the Club ; to secure speakers ; and to suggest topics for discussion, which shall assure profitable and interesting meetings.

SECTION 4. *Publicity Committee*: The Publicity Committee shall consist of the Fourth Vice-President and two other members

appointed by him. It shall be the duty of this Committee to promote the publicity of the Club through the local newspapers, the announcement of programs of the meetings of the Club, and otherwise to carry on the work of publicity for the Club.

#### ARTICLE VII — *Meetings*

The Club shall hold regular meetings each . . . evening of the . . . between the hours 7:30 and 10:00 o'clock.

#### ARTICLE VIII — *Dues*

There shall be no regular dues of the Club. Active members of the Club may contribute . . . cents per year to pay the expenses of printing programs, paying expenses of an outside speaker, and such other incidental expenses as may be incurred.

#### ARTICLE IX — *Quorum*

Eight active members of the Club shall constitute a quorum for the transaction of all business.

#### ARTICLE X — *Amendments*

The constitution may be amended by two-thirds vote of the active members present at any regular meeting.

#### *Order of Business*

The order of business in all regular meetings of the Club shall be as follows :

1. Call to order
2. Reading minutes of previous meeting
3. Report of standing committees
4. Report of special committees
5. Treasurer's report
6. Unfinished business
7. New business
8. Special program
9. Discussion
10. Adjournment

**Why mothers' meetings?** The following are a few of the reasons for conducting these meetings:

1. They furnish a pleasing opportunity for bringing the parents, or mothers at any rate, to the school; this is of great importance.

2. They bring teacher and parents into closer touch and thus furnish the means for coöperation. Such coöperation is the basis of any successful school.

3. Through contact with the parents, the teacher gets a more helpful and a more sympathetic attitude toward her pupils. Sympathetic helpfulness appeals to the mother, and she will be ready to back the teacher in her program for pupil betterment.

4. These meetings give the teacher an opportunity to explain any school matter or to present a school problem to a group of interested and usually responsive persons.

5. The teacher on such an occasion has a good chance to show what is needed in the way of improvements — furniture, books, or apparatus.

6. These meetings emphasize the great and ever-present truth that the school and the home must work together for the good of the child.

7. During such gatherings the parents often see more plainly the difficulties under which their teacher works, so they are more inclined to give her the needful support.

8. Through these meetings the parents come to realize more fully the meaning of education; they acquire in some degree an interest in the welfare of the school.

9. These meetings have frequently been the means of clearing up misunderstandings which, if allowed to go on, would tend to interfere with the efficiency of the teacher and of her school.

10. Pupils always tend to take more interest and to do better work if they see that their mothers and their teacher are working in harmony for their good.

**Flag facts for teacher and pupils.<sup>1</sup>** — THE AMERICAN FLAG is the symbol of the brotherhood of man; it stands for courage, for chivalry, for generosity, and for honor.

To bear the Star Spangled Banner is an honor; to own one is a sacred trust, for it is the emblem of freedom, equality, and justice to all.

The flag should not be hoisted before sunrise, nor allowed to remain up after sunset. When being raised or lowered, it should not be allowed to touch the ground.

When the national colors are passing on parade or in review, and when they are being lowered at sunset and the "Star-Spangled Banner" is being played, spectators should, if walking, halt, and, if sitting, rise and stand at attention with hats off.

The flag at half staff is a sign of mourning. In placing the flag at half staff, it first should be hoisted to the top of the staff and then lowered to position; and preliminary to lowering from half staff, it should be raised to the top. On Memorial Day, May 30, it should fly at half staff until noon and at top staff from noon until sunset.

When a flag is displayed from a horizontal staff or rope, the union or blue field should be away from the building from which it is displayed.

**The Pledge of Allegiance.** The *Pledge of Allegiance* was given, under the leadership of *The Youth's Companion*, by more than 12,000,000 Public School Pupils during the National Public School Celebration of October 21, 1892.

<sup>1</sup> The discussions in the sections entitled "Flag Facts for Teacher and Pupils" and "The Pledge of Allegiance" are from literature issued by *The Youth's Companion*. The author acknowledges his indebtedness to the publishers of this well-known magazine.

So patriotic and appropriate was this Pledge of Allegiance that it has been perpetuated, and is still given in thousands of schools. It may be called the national salute, and its universal adoption by public schools and patriotic organizations is strongly advocated by prominent educators.

**Procedure.** The flag may be draped against the wall near the teacher's desk, or preferably, permanently mounted on a staff and stationed near the desk. The Pledge of Allegiance may be observed in the following manner :

1. Display the flag at the teacher's desk.

2. At a given signal every pupil stands and turns his face toward the flag, hands to the side.

3. At the next signal, each pupil should give the civilian salute. This is done by standing with the right hand over the heart, while the pupils, in this position, repeat together the following pledge : "I pledge allegiance to the flag of the United States of America, and to the Republic for which it stands, one Nation indivisible, with liberty and justice for All." At the words, "to the flag," the right hand is extended gracefully, palm upward, toward the Flag, and remains in this position till the end of the affirmation ; whereupon all hands immediately drop to the side. (This is the civilian salute. Persons in uniform should render the right-hand salute. Men and boys should remove the headdress when the Flag passes by.) Then, still standing, the exercise may close with our National Hymn, "America." In some of our Public Schools the pledge is given daily at the opening in the morning session. In most cases, however, it is observed at the opening of the School on Monday morning. In many states the flag must be displayed on every school day from a staff either on the building or in the yard. In such cases it should be raised as stated on page 265, so far as possible.

**Special flag days.** The following is a suggestive list of suitable days to display the flag in commemoration of the events named:

January 1 (1863)	Emancipation Proclamation
January 19	Lee-Jackson Day
February 12 (1809)	Birthday of Abraham Lincoln
February 22 (1732)	Birthday of George Washington
April 9 (1865)	Lee's Surrender
April 19 (1775)	Battle of Lexington
April 26	Confederate Memorial Day (Alabama, Florida, Georgia, Mississippi)
April 27 (1865)	Birthday of U. S. Grant
May, Second Sunday	Mothers' Day
May (date varies)	Arbor and Bird Day
May 1 (1898)	Battle of Manila
May 18 (1899)	Peace Day
May 30	Decoration Day <sup>1</sup> (flag at half mast)
June 14 (1777)	Flag Day
July 4 (1776)	Declaration of Independence
Sept. 3 (1783)	Treaty of Paris
September, First Monday	Labor Day
October 12 (1492)	Columbus Day (Discovery of America)
October 17 (1777)	Battle of Saratoga
October 19 (1781)	Surrender of Cornwallis
November, Tuesday after first Monday in 33 of the States	General Election Day
November, last Thursday	Thanksgiving Day
November 11 (1918)	Armistice Day
November 25 (1783)	Evacuation Day
December 22 (1620)	Landing of the Pilgrims — Forefathers' Day

<sup>1</sup> April 26, May 8, and May 10 are Memorial Days in some Southern States.

## YOUR FLAG AND MY FLAG

Wilbur D. Nesbit

Your Flag and my Flag,  
 And how it flies today  
 In your land and my land  
 And half the world away !  
 Rose-red and blood-red  
 The stripes forever gleam ;  
 Snow-white and soul-white —  
 The good forefather's dream ;  
 Sky-blue and true-blue, with stars to gleam aright —  
 The gloried guidon of the day, a shelter through the night.

Your Flag and my Flag !  
 And, oh, how much it holds —  
 Your land and my land —  
 Secure within its folds !  
 Your heart and my heart  
 Beat quicker at the sight ;  
 Sun-kissed and wind-tossed,  
 Red and blue and white.

The one Flag — the great Flag — the Flag for me and you —  
 Glorified all else beside — the red and white and blue !

Your Flag and my Flag —  
 To every star and stripe  
 The drums beat as hearts beat  
 And fifers shrilly pipe !  
 Your Flag and my Flag —  
 A blessing in the sky ;  
 Your hope and my hope —  
 It never hid a lie !

Home land and far land and half the world around,  
 Old Glory hears our glad salute and ripples to the sound !<sup>1</sup>

<sup>1</sup> Printed by special permission of the author.

**Thirteen patriotic songs.** *a.* America, *b.* America, the Beautiful, *c.* Battle Cry of Freedom, *d.* Battle Hymn of the Republic, *e.* Columbia, Gem of the Ocean, *f.* Keep the Home Fires Burning, *g.* The Marseillaise, *h.* Smiles, *i.* Soldiers' Chorus, *j.* Star Spangled Banner, *k.* There's a Long, Long Trail, *l.* When Johnny Comes Marching Home, *m.* Onward, Christian Soldiers.

**Do you know Old Glory?** Without looking at the flag test yourself and your pupils by using the following questions :

*a.* What color are the stars? The field? *b.* How many red stripes? How many white ones? *c.* What color is the upper stripe? The lower? *d.* How many long stripes? How many short ones? *e.* What color is the stripe next below the field? *f.* Which dimension of the field is the greater, the vertical or the horizontal? *g.* How are the stars arranged? *h.* Which is the longer, a short stripe or the horizontal length of the field?

Do you and your pupils know which star in Old Glory represents your particular state? How many states had been admitted when your state was granted that great privilege? Count the stars in the horizontal lines, beginning with the upper left-hand corner, after you know the numerical order for the admission of your state.

**The American's Creed.** "I believe in the United States of America as a government of the people, by the people, for the people, whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign Nation of many sovereign States; a perfect Union, one and inseparable, established upon those principles of freedom, equality, justice, and humanity for which American patriots sacrificed their lives and fortunes. I therefore believe it is my duty to my country to love it; to support its Constitu-

tion; to obey its laws; to respect its flag; and to defend it against all enemies.”<sup>1</sup>

**General suggestions for conducting meetings.**<sup>2</sup> It is important that this social- and civic-center work be done properly and that such meetings be truly successful. For this reason, the following suggestions and cautions are given. They are the result of the experience of persons who have been working in country and state graded schools for many years.

1. The primary purpose of the school must always be kept in mind. This purpose is to give the children of the community an elementary education, and one of the important phases of this elementary education is the mastery of the essentials of the fundamental branches.

2. Care should always be taken after a social function of any kind that the schoolroom is in proper condition for the regular school work before its next session opens.

3. Too much time should not be taken from the regular school work to prepare for the school entertainment. We should not get the idea that some time so taken is wasted, however; it may be necessary and advisable to use a portion of the regular school hours, at times, to prepare for the program.

4. The exercises should be carefully planned. Even the details of the room management should be looked after, so that the people may be as comfortable as possible. The board and others should coöperate with the teacher, and the people be made to feel that they are welcome.

<sup>1</sup> By William Tyler Page, descendant of President Tyler and Carter Braxton, signer of the Declaration of Independence. The words of this Creed are taken from our Constitution, the Declaration of Independence, and the utterances of our great statesmen, patriots, and authors.

<sup>2</sup> The first thirteen of these general suggestions are quoted from the bulletin, *Social and Civic Center Work in Country Communities*, referred to on page 244.

5. Tact should be used in making the selections for the program. The feelings and prejudices of the people should, to some extent at least, be taken into consideration. There is so much good material for program purposes that it is not necessary to take anything that might offend. Where a school program is given, effort should be made to have every child take part. By grouping the children, this can be done without making the program unduly long. Long, tedious programs should always be avoided. An hour and a half should be about the limit, as a rule.

6. We must not expect too much from the teacher. We should get others to help. The teacher, it is true, must be held responsible for any contributions which the children make, but it is too much to expect the teacher to be at the head of a literary society in which the whole community takes part. Besides, it is well to have the burdens and responsibilities distributed among the people. The teacher may leave the community at the end of the year, and it is well to have the people themselves trained to go on with the work.

7. When this work is first undertaken it should be begun in a modest way. The selections and the program should be simple and not too long.

8. Those who have the preparation of programs in charge should beware of the tiresome, long-winded person, whether local talent or outsider.

9. Do not be too anxious to introduce overexciting features. The great purpose of these meetings is to get as many as possible to take part. If spectacular exhibitions become common they will have a tendency to discourage the more modest efforts of the people themselves. While it is an excellent plan to have the county superintendent or any outside person give an illustrated lecture, yet we do not want

to go to the other extreme and make the people feel that in order to have anything worth attending we must have some outsider present, or some spectacular show.

10. Occasionally it happens that people from the outside, sometimes from a near-by village or city, will go out into the country to attend one of these evening meetings. In this group may occasionally be found persons of superficial judgment who will criticize and find fault with the efforts of those who are trying to do their best. While true men and women will never do this, it is well to be prepared to meet any "snobs" that may happen to come around. Just how this is to be done, particular conditions will determine.

11. We should in every possible way try to avoid factionalism. These meetings should be a means of cementing the people of the district into one community, and anything that may cause any formation of factions must be studiously avoided.

12. As the interest in these meetings grows, do not let their management become monopolized by either young or old. In some communities the clubs have gone to pieces largely because comparatively young people have had the management in their hands. In other communities interest has been lost because the older people have managed the organization, and the young people have gradually lost interest.

13. The teacher should always be careful not to assume a superior attitude toward the people of the community. She should also be careful not to force her own individual ideas or opinions unduly. When the people assume a resentful attitude toward the teacher, her power as a community leader is seriously weakened, if not destroyed.

14. Train your pupils to talk in clear, distinct tones, so they can be understood. Drill them enough so they will not

need to be prompted. This is quite possible, although some teachers apparently think otherwise, judging by their practice. If a teacher must prompt anybody, she should do it so that the child gets his cue quickly. It is very embarrassing to make the pupil wait, trying to think of his part before an audience.

15. Arrange to let fresh air into the room. A small country schoolhouse with little or no ventilation, crowded with people, is often a veritable hot bed of contagion and disease. Open the windows occasionally, if only for a few minutes. Have persons appointed to look after this important matter. Don't compel people to sit in drafts, however.

16. Don't allow your pupils to talk loudly and to run around and disturb people during intermissions or at any time. Tell them beforehand what is right and what you expect. This is certainly a part of their training in good citizenship. Sometimes some of the older young people of the district and from adjoining districts and towns do not manifest the best of manners. They are loud in their talk and often in their actions. The members of the board should assist the teacher in keeping such persons in order. People should be kept reasonably quiet when the auctioneer is selling the boxes at a box social, in justice to him and to the audience.

17. Often there is good talent in the district which should be utilized for speaking or singing or both. People usually need repeated and often urgent invitations to assist; but generally they are glad to help the teacher and the school, and will add much to the evening's entertainment in many cases.

18. Begin at eight o'clock. This can be done. Parents, pupils, and others can be made to understand that eight o'clock means eight o'clock, although they may need some

training. In any case and always the teacher must be good natured, whether people are on time or come late. Be the cordial hostess and receive people graciously.

19. The program is not for the teacher's benefit, as she is simply the servant of the people. The program is for the good of the boys and girls and of the people of the district. It is a meeting of the people and for the people, and should many times be *by* the people, also. Try to make the program instructive as well as entertaining. The teacher does not have time for elaborate scenery and costumes, or for those foolish farces which usually have no educational value. There can be plenty of fun without such items.

20. Teach and train your boys and girls to stand straight, to walk erect and in line, and to speak in clear, distinct tones. Pupils should be drilled until they can do their parts well. Otherwise there is sure to be much embarrassment and chagrin.

**Community singing.** It always adds to the enjoyment of a community center gathering to have all join, so far as possible, in singing some of the old familiar songs which nearly all people like to sing and hear. In order to make such singing a success, there should be a capable leader; and enough copies of the words of the various songs should be available so that at least every two persons may have a copy, preferably each person.

If the leader can arouse the enthusiasm of the people by a few well-chosen words relative to the importance of all taking part, so much the better. If the singing is to be worth while there must be the good spirit — the will to sing, so to speak. Most people can sing, if they will only try, under the skillful leadership of some man or woman who can carry the tune clearly and strongly. The leader should also be a good talker—if possible, someone who can animate the

crowd, get them interested and in a good-natured responsive mood. This is important.

Your university extension bureau or your state or county normal school will sometimes furnish enough copies of songs to go around if the teacher will secure a good leader for the occasion. However, mimeographed copies of the words can be readily made. Whenever it can be done, it helps greatly to have a piano or organ accompaniment. The teacher should arrange to have three or four young people pass out the songs promptly, and then to collect them again at the close.

The following songs, among others and in addition to the patriotic songs listed above, are good for this community singing; the teacher will do well to train her pupils so they can lead in good form if the occasion demands, as it probably will: (1) Your own state song; (2) Old Black Joe; (3) Love's Old Sweet Song; (4) Old Folks at Home; (5) Massa's in the Cold, Cold Ground; (6) Lightly Row; (7) Holy Night; (8) My Bonnie.

There are several good cheap song books, but three of the most useful collections of the common songs for country schools with which the writer is acquainted are the following:

1. Twice 55 Community Songs; C. C. Birchard and Company, Boston, Mass. Price 15¢ each, or 12¢ in quantities.
2. The One-Hundred and One Best Songs; The Cable Company, Chicago. Price 10¢.
3. The Golden Book of Favorite Songs; Hall and McCreary, Chicago. Price 15¢, or 10¢ each if by the dozen.

A new type of community service.<sup>1</sup> The *Janesville* (Wisconsin) *Daily Gazette* has the distinction of being the first newspaper in the world to establish a community service

<sup>1</sup> This discussion was prepared by Mrs. Florence Slown Hyde of the *Daily Gazette*, Janesville, Wisconsin.

department, with help to rural schools and rural-community organizations as its chief purpose. This department was inaugurated by the *Gazette* in the fall of 1922, with Mrs. Florence Slown Hyde in charge as community editor. The Good Times Club, designed as an organization especially suited to the needs of children in one-room and small graded schools, enrolled more than 4000 children within a period of two years, representing 190 school branches in five counties of southern Wisconsin. Monthly recreation programs have been sent to each school branch free by the *Gazette* and a long list of entertainment and program materials, handicraft helps, and other extracurricula aids have been offered to the teachers at small cost. Materials are sent on approval when desired, which enables teachers to return anything that cannot be used.

An outgrowth of the Good Times Club service is a series of athletic and physical tests which may be taken with the aid of such simple equipment as is found in practically every rural school. Another development has been an individual point system for school pupils and a patron's point system, in connection with which honor buttons are offered to pupils and honor pennants to schools for certain achievements.

An original plan for graded music-memory contests has been inaugurated, by which the younger pupils in the one-room school may participate to the full extent of their ability. Prizes for local and county music-memory contests have been furnished by the *Gazette*.

Kite making has been promoted in connection with township and county school playdays, directions for making kites being furnished and prizes offered to schools whose pupils scored the highest number of points in playday tournaments.

A portable motion-picture projector which may be operated with either a 110- or 50-volt current, the latter drawn from

storage batteries when necessary, is used to present film programs in rural schools, community halls, and churches. Free films are secured from the Bureau of Visual Instruction, Madison, Wisconsin.

The *Gazette* carries a Good Times Club section in its weekend edition issued Saturdays. This section features letters written by rural school pupils telling about school activities. Letters are graded each month by students of the Rock County Rural Normal School and prizes are given to the four that receive the highest grades. Teachers regard this news letter writing as a real help in the motivation of language work.

The *Gazette* Community Service Department coöperates with rural-community clubs, local Farm-Bureau and Grange organizations, farm-women's clubs and other rural groups that desire assistance in connection with recreation or community-welfare projects. The aim of the Service has been to respond to any need that might arise either directly or by referring the applicant to such other agencies in county, state, or nation as might be of service to them.

There has been no attempt to promulgate preconceived programs of work or to displace the program of any existing agency. On the other hand, interpretative articles about the work of educational forces and about every worth-while project promoted by any and all organizations have been featured by this newspaper. Other newspapers should be encouraged to emulate the worthy example set by the *Janesville Daily Gazette*.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. State five good arguments in favor of the get-together idea. What modern inventions, customs, habits, forms of amusement, and tendencies interfere with people's getting together in community gatherings? What others aid it?

2. Make a list of people in your county who might assist you in a community gathering, and indicate what each one may be called upon to do.
3. Outline a ten-minute talk by the teacher at a *first* community meeting. Prepare to give this talk in good form, and then practice on your classmates; or you can have the real, natural setting in a meeting at your own schoolhouse.
4. Make out a good Memorial Day program of speaking, singing, flag drills, or other important items, which will take from sixty to seventy-five minutes.
5. Make out a good program for Armistice Day. Don't forget to include "In Flanders Field," "Your Flag and My Flag," "The American's Creed," the "Flag Salute" and "Pledge of Allegiance," and perhaps "The Gettysburg Address."
6. Teach and train a group of pupils to give the Flag Salute and Pledge of Allegiance in perfect form. It should be done thoughtfully and gracefully, not mechanically and carelessly.
7. Use the sample constitution as a model and organize a neighborhood improvement club. If a student, you and your class can practice on the problem; if a rural teacher, it will be possible for you actually to effect an organization of the people of your district.
8. Plan to have a mothers' meeting in your school in October and May at least, as suggested in the text. Write out all the things you will need to attend to in order to have a successful meeting.
9. Commit to memory, so that they become second nature, the "Pledge of Allegiance," "Your Flag and My Flag," "The American's Creed," "In Flanders' Field," and "The Gettysburg Address."
10. Suppose you were expected to lead in community singing, would you be able to do it? Outline a talk to arouse the enthusiasm of the audience. How many of the listed songs can you sing successfully?
11. Write out the answers to the questions on the flag; then from a standard flag check up your answers. Study "Old Glory" until you know it thoroughly, including the meaning of it. Test a group of children with the questions.
12. Make out a good patriotic Washington-Lincoln program. Don't forget "The Gettysburg Address" or some anecdotes concerning both Washington and Lincoln.
13. Show how you can include *all* of your pupils, smallest and oldest, brightest and dullest, in your Christmas program. Make out the program in detail.

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## CHAPTER XV

### THE SUCCESSFUL SCHOOL SOCIETY

**Need for training in a democracy.** The school society, or the literary society, as it is sometimes called, has been given a good deal of attention in many rural schools in several states during the past few years. Certainly no type of work is of greater practical value to the boys and girls who must manage affairs of government in the years to come. It is, indeed, difficult to overestimate the importance of training pupils in the real business of conducting a public meeting, for there is much ignorance on this subject among our adult population. Relatively few know how to act as chairman of a meeting or how to write the secretary's minutes in proper form. The only way by which boys and girls can ever know these things is by direct instruction and training. As a case in point, the way in which some of our annual school meetings are conducted is not a credit to our democracy. The teacher will do well to keep in mind these and other actual conditions which will confront our young people when they grow to manhood and womanhood, and to prepare them specifically for the particular duties they will need to discharge as active, participating citizens of the community. John will some day serve as school clerk or town clerk, the chairman of a town meeting, town treasurer, member of the county board, or in some similar official capacity. The school should consciously, directly, specifically prepare him for these duties of citizenship. The school society is an important agency for such preparatory training.

**Some significant purposes.** The school society will serve several useful purposes; among these are the following: (1) to give adequate and specific training in the organization and management of a society; (2) to instruct and train pupils carefully in the particular, definite forms of good parliamentary usage; (3) to afford suitable means for the regular presentation of well selected rhetorical or literary exercises; (4) to furnish the machinery, especially through committees, for coöperation between teacher and pupils in carrying on the regular work of the school, and in such extracurricular activities as may promote the social and civic betterment of the children; (5) to give teacher and pupils a ready-to-hand organization for presenting public programs of various sorts at mothers' meetings and community center gatherings; (6) to give means for correlation with the work in civics or civil government, by affording opportunity for training pupils directly in the functions of the annual school meeting, the town meeting, the meeting of the county board.

In this way, also, boys and girls may be taught how to keep the district clerk's record book, the treasurer's accounts, and other official records. It may be that the clerk's records or the treasurer's accounts in many districts will not be kept as they should be. In that case perhaps the teacher can secure the coöperation of the county superintendent in finding the correct form. The data for the records, at least, can be secured from the proper officials.

**A constitution and by-laws.<sup>1</sup>** The society should have a workable constitution and set of by-laws. These can be found in many sources. The particular form adopted by the school should contain all that is necessary in order to provide

<sup>1</sup> From *Organization of School Societies*, by W. E. Larson, issued by former Superintendent C. P. Cary (Wisconsin).

for the needs of the school, and no more. In this connection children should be taught the need for system, rules, and regulations. The pupils should know their constitution ; it should be posted on the bulletin board. After a constitution and by-laws are adopted, teacher and pupils should follow them. In all this work take nothing for granted, but teach and train in all necessary details.

The following constitution is so simple and usable that the author feels it will serve for many rural schools in various parts of the country :

#### PREAMBLE

We, the pupils attending school in District No. . . . , of the Town of . . . . . County, State of . . . . , in order to be of the greatest possible service to our country, state, and community, to advance the interests of our school, to afford added opportunities for our own educational development, especially in training for the conduct of public meetings, do form ourselves into a school society and adopt for our guidance this Constitution.

#### ARTICLE I — *Name*

The name of this organization shall be the Public School Society of Dist. No. . . . Town of . . . . County, State of . . . .

#### ARTICLE II — *Objects*

The objects of this Society shall be : 1. To teach and train the pupils of this school to work as effectively as possible in coöperating with the teacher, the board, and others of the school and community. 2. To afford opportunities for development through participation in business meetings, parliamentary practice, preparation of programs, and the like. 3. To enable us as pupils to work better as a group in building up our school and community.

#### ARTICLE III — *Members*

1. Any person who attends this school or who intends to attend the school during the year shall become a member of this Society

by signing this Constitution, provided that no person shall be enrolled as a member while attending another school. 2. The teacher shall be a member of the Society. 3. Graduates from this school during the past two years shall be honorary members of the Society.

#### ARTICLE IV — *Officers*

1. The officers of this Society shall be a President, a Vice-President, a Secretary, and a Treasurer. With the exception of the Treasurer, they shall be elected for a period of . . . . months (weeks), and shall hold their offices until their successors are elected and qualified. The election shall be by ballot. 2. The President shall preside at all meetings and perform all other duties usually devolving upon such an officer. 3. The Vice-President shall perform the duties of the President when the latter is absent. 4. The Secretary shall keep records of all meetings, carry on all correspondence of the Society, and perform other duties pertaining to the office. 5. The teacher shall be the *ex-officio* Treasurer of the Society. The Treasurer shall keep all the funds of the Society and pay out money upon the order of the Secretary, countersigned by the President. 6. The Officers of the Society shall constitute the Executive Committee. The Executive Committee shall have charge of the general management of the Society and of any special work delegated to it, and not referred to any special committee. The Executive Committee shall also appoint all other committees when ordered to do so by the Society. 7. Committees to carry on special work in the society shall be appointed any time during the year when it may be found necessary. 8. Vacancies in any of the offices, except treasurer, shall be filled by special election at any regular meeting. Vacancies on committees shall be filled by the Executive Committee.

#### ARTICLE V — *Meetings*

1. This Society shall hold regular meetings every Friday afternoon after recess. Special meetings may be called at any time by

the Executive Committee. (Adapt to conditions.) 2. One-third of the members of the Society shall constitute a quorum to do business.

#### ARTICLE VI — *Dues*

(a) There shall be no regular dues, or (b) The dues of this Society shall be . . . . cents per . . . .

#### ARTICLE VII — *Amendments*

An amendment to this Constitution shall be proposed in writing and read at the regular meeting of the Society. It shall then lie on the table until the next regular meeting. If carried at that meeting by a majority of all the active members, it shall become a part of this Constitution.

#### BY-LAWS

1. This Society shall be governed by Robert's Rules of Order.
2. The order of procedure at the meetings shall be as follows :
  - a. Call to order ; b. Reading of minutes, and action thereon ;
  - c. Reports of standing committees ; d. Reports of special committees ; e. Communications, with action thereon ; f. Unfinished business ; g. New business ; h. Program ; i. Further business, if any ; j. Adjournment.

**Suggestions for Progams.** The school society affords the means for two sorts of program activities — the literary program of recitations and singing, and the program which provides opportunity for parliamentary practice and for direct training in the duties of citizenship. The teacher should strive not to neglect either phase of the work or to overemphasize either kind of program. Every week the children should get some practice in public speaking, but likewise some practice in conducting a public meeting. There must be direct instruction in parliamentary practice and direct training in actually doing the work.

The work of the school society that naturally correlates with the work in civics is important. Some of this consists of parliamentary usages and some of it will include instruction and training in the duties of various public officials, particularly those of the local community. The teacher may be able to secure the coöperation of the school clerk, the town treasurer, or other officers in doing such work as is here suggested. The danger is that the teacher may not work with concrete cases. This work is not theoretical, but eminently practical. If the teacher does not know, she should take the necessary steps to find out by asking those who do know.

Have talks on the kinds of motions; then have the children write out motions and see that they are properly presented. Have amendments written out, possibly an amendment to the first amendment. That is the parliamentary limit. Then show the chairman exactly how to state the needed motions. All of this work is in the nature of a class exercise. Make a regular weekly business of it. Take plenty of time to do it right. You cannot use school time in a more profitable way.

What of the literary exercises, the observance of various holidays, and the like? Here is a large field. In the first place the teacher should look ahead a year and set down in her notebook the various special-day programs which it will be necessary for her to present. These special occasions include the observance of the birthdays of noted people who have achieved fame in various fields of human endeavor—authors, famous women, inventors, statesmen, and presidents. See list in the Hall of Fame. The teacher will naturally observe Thanksgiving, Christmas, Arbor and Bird Day, Memorial Day, Armistice Day, and she will have a good patriotic Washington-Lincoln program.

**Starting the work.**<sup>1</sup> 1. Have pupils seated as conveniently as possible.

2. Tell them that business is brought before an assembly by a motion or by the presentation of a communication.

3. Teach them how to make motions. A person must rise, address the chair by saying, "Mr. Chairman." The chairman "recognizes" the member by speaking his name, thus "giving him the floor." When a member has been recognized he makes the motion, saying, "I move that," etc., or "I make a motion that," etc.

4. The next step is to have the motion seconded. This can be done by any member without rising and without addressing the chair.

5. The chairman then states the question by saying, "It is moved and seconded," etc.; it can then be discussed. After discussion it is put to a vote. One form is the following: "All in favor say *aye*; all opposed, *no*. The ayes have it, and the motion is carried."

6. After this instruction has been given, the children should be given considerable practice in making motions. The older ones should also be given opportunity to act as chairman and to put the motions.

**Illustrative procedure.**<sup>2</sup> For some years the following illustration of actual society practice was printed in the *Wisconsin Common School Manual*. It is reproduced here in order that teachers and pupils may get the form of words and the different ways of handling motions. Mr. C. is the chairman and Mr. S. is the secretary:

Mr. A. (rising) — Mr. Chairman.

Mr. C. — Mr. A.

<sup>1</sup> From *Wisconsin Course of Study for Rural Schools*. Prepared by W. E. Larson.

<sup>2</sup> W. E. Larson, *op. cit.*

Mr. A. — I make a motion that this Society have a Fourth of July picnic.

Mr. B. (without rising) — I second the motion.

Mr. C. — The motion has been made and seconded that this society have a Fourth of July picnic. Are there any remarks?

Mr. M. — I have no objections to the picnic, but we have plenty of time to consider this matter, and as there are some things which must be considered before nine o'clock to-night, I move that this question be laid on the table.

Mr. O. — I second the motion.

Mr. C. — It has been moved that the question relating to the Fourth of July picnic be laid on the table. (Undebatable.) All in favor say *aye*; opposed, *no*. The ayes have it. Motion is laid on the table.

Mr. Y. — Mr. Chairman.

Mr. C. — Mr. Y.

Mr. Y. — It is necessary for us to decide in the early part of the evening whether we shall have Mr. D. or Mr. B. deliver the address at our meeting next week. I therefore make the motion that we select Mr. D. as our speaker.

Mr. A. — I second the motion.

Mr. C. — It has been moved and seconded, etc. Any remarks? (Here followed a discussion which became very prolonged and it was getting near the time when a decision had to be taken.)

Mr. X. — Mr. Chairman.

Mr. C. — Mr. X.

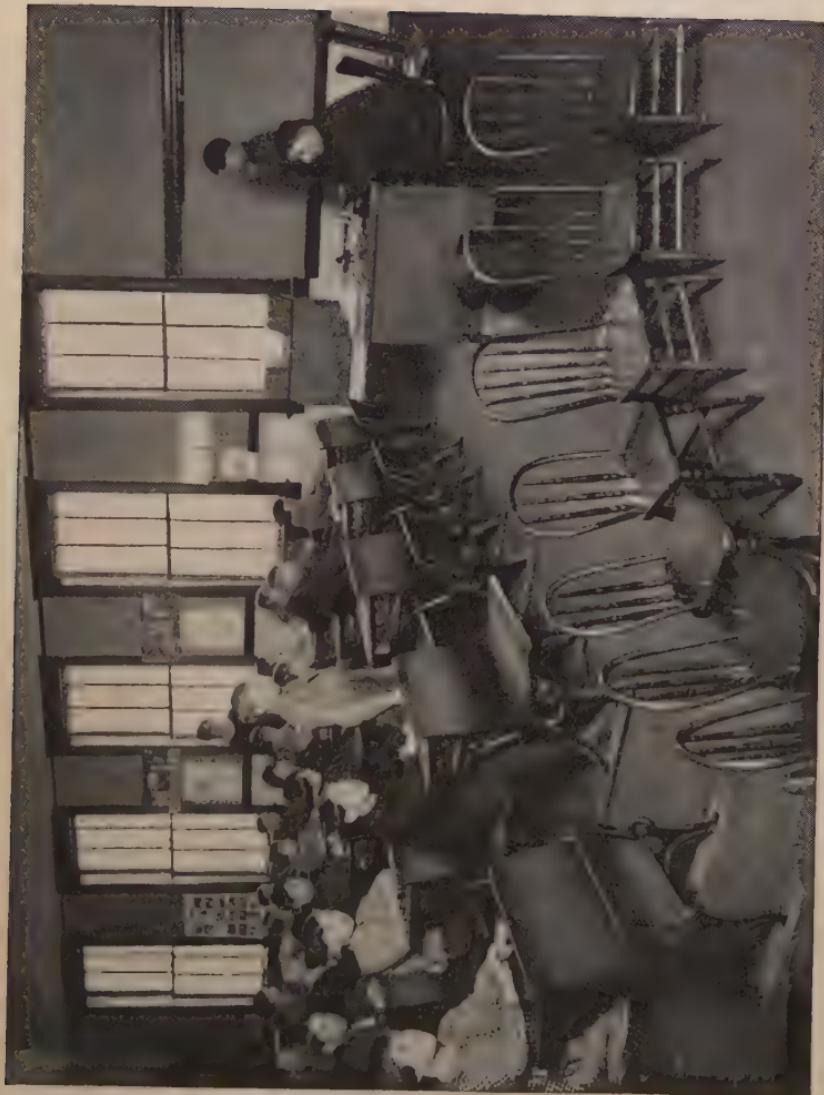
Mr. X. — I call for the previous question.

Mr. M. — I second the call.

Mr. C. — The previous question has been called for. As many as are in favor of ordering the previous question on the main motion will rise; all opposed rise; (18 votes for, 6 against); the motion is carried (two-thirds vote). All in favor of selecting Mr. D. as our speaker will say *aye*; opposed, *no*. Motion carried (main question).

Mr. L. — Mr. Chairman.

Mr. C. — Mr. L.



The school society in session

Mr. L. — I move that Mr. O. be instructed to communicate with Mr. D. at once by phone so that we may know definitely if he is available.

Mr. M. — I second the motion.

Mr. C. — It has been, etc. Any remarks? . . . All in favor say *aye*; opposed, *no*. Motion carried. Mr. O. is hereby instructed to communicate with Mr. D. and report the information to the meeting. (Mr. O. leaves.)

Mr. R. — Mr. Chairman.

Mr. C. — Mr. R.

Mr. R. — I move that a committee of three be appointed to make the special arrangements needed for our next meeting.

Mr. S. — I second the motion.

Mr. C. — It has been, etc. Any remarks?

Mr. A. — Mr. C.

Mr. C. — Mr. A.

Mr. A. — I move to amend the motion by substituting *five* for *three*.

Mr. N. — I second the amendment.

Mr. C. — The motion has been amended. . . . Any remarks?

Mr. T. — I believe that it is not right to expect only five to do all the work connected with this meeting. Let us all help. Therefore, I move to amend the amendment by giving the five the right to draft as many members as may be needed to help them.

Mr. U. — I second the last amendment.

Mr. C. — The amendment has been amended. . . . Any remarks? (After a few members had spoken the vote was put.) We shall first vote on the last amendment. All who are in favor of . . . say *aye*; opposed, *no*. Amendment carried. We shall now vote on the first amendment as amended. All in favor of substituting five for three and giving them the power . . . say *aye*; opposed, *no*. The amendment as amended is carried. We shall now vote on the original motion as amended. All who are in favor of . . . say *aye*; opposed, *no*. The original motion as amended is carried.

Mr. F. — Mr. C.

Mr. C. — Mr. F.

Mr. F. — I move that the Society have no meetings during the summer months.

Mr. Z. — I second the motion.

Mr. C. — It has been. . . . Any remarks?

Mr. M. — I move that the question be postponed indefinitely.

Mr. S. — I second the motion.

Mr. C. — It has been moved. . . . Any remarks? (Several take part in discussion.) All in favor of indefinite postponement of this question say *aye*; opposed, *no*. Carried.

Mr. F. — I call for a division of the house.

Mr. C. — A division is called for; those in favor will rise. Those opposed will rise. The motion is carried by a vote of 12 to 11.

#### RECESS

Mr. C. — The meeting will come to order.

Mr. O. — Mr. C.

Mr. C. — Mr. O.

Mr. O. — I learned from Mr. D. that it is impossible for him to come to our next meeting as he has another engagement. Therefore, I move that we reconsider the vote on the motion regarding the choice of speakers.

Mr. S. — I second the motion.

Mr. C. — It has been moved. . . . Any remarks?

Mr. A. — Mr. C.

Mr. C. — Mr. A.

Mr. A. — I rise for information. Did the gentleman who made the motion vote on the prevailing side?

Mr. C. — He did. If there are no more remarks we shall vote on the question. All in favor say *aye*; opposed, *no*. Motion is carried. The question regarding our speaker is now open for discussion.

Mr. M. — Mr. C.

Mr. C. — Mr. M.

Mr. M. — I move to amend the motion by substituting Mr. E. for Mr. D.

Mr. N. — I second the amendment.

Mr. C. — An amendment has been made to substitute Mr. E. for Mr. D. Any remarks? . . . All in favor of the amendment say *aye*; opposed, *no*. Amendment carried. We shall now vote on the original motion as amended. All in favor say *aye*; opposed, *no*. Carried.

Mr. A. — Mr. C.

Mr. C. — Mr. A.

Mr. A. — I make a motion that we have no meetings during the summer months.

Mr. C. — The gentleman is out of order. That motion has been made before during the session and it was postponed indefinitely.

Mr. I. — Mr. C.

Mr. C. — Mr. I.

Mr. I. — I move that the question of having a Fourth of July picnic be taken from the table.

Mr. A. — I second the motion.

Mr. C. — It has been moved. . . . (Undebatable.) All in favor say *aye*; opposed, *no*. The motion is carried and the question is before the assembly.

Mr. U. — I move that this matter be referred to a committee composed of the treasurer and two other members appointed by the chair, said committee to report at our meeting two weeks from to-night.

Mr. V. — I second the motion.

Mr. C. — It has been moved. . . . (Several take part in the discussion.) All in favor of referring this to a committee say *aye*; opposed, *no*. The motion is carried. As members of the committee I appoint Mr. U. and Mr. N.

Mr. B. — Mr. C.

Mr. C. — Mr. B.

Mr. B. — I believe that we ought to have a lecture course in the city. Therefore, I make a motion that a committee be ap-

pointed to consider the advisability of undertaking this matter and report next week.

Mr. Q. — I second the motion.

Mr. C. — It has been. . . . Any remarks?

Mr. S. — Mr. C.

Mr. C. — Mr. S.

Mr. S. — I think it is early in the year to take up this matter, and besides we do not expect to have a business meeting next week. I believe it better to wait until Mr. E. has been here, as he will be able to give us some advice in this matter. I therefore move that the consideration of the question be postponed until our meeting two weeks from to-night.

Mr. T. — I second the motion.

Mr. C. — It has been. . . . Remarks? (Only remarks regarding wisdom of postponement were allowed.) All in favor of the postponement say *aye*; opposed, *no*. Motion carried.

Mr. A. — Mr. C.

Mr. C. — Mr. A.

Mr. A. — I move that we adjourn.

Mr. N. — I second the motion.

Mr. C. — It has been. . . . (Not debatable.) All in favor say *aye*; opposed, *no*. The motion is carried and the meeting is adjourned.

*Stevan*  
Writing up the minutes. In order to assist teachers in writing up the minutes the following illustration is given of the record of an actual meeting:

The seventh regular meeting of Philomathia Literary Society was held May 14, 1925. The meeting was called to order by the President. The minutes of the previous meeting were read and accepted. Ida J. made a motion that each member pay ten cents to make up the deficit of the party bill. Mary B. seconded this motion. Julia D. moved that the motion be amended by inserting the words "on or before May 20th," before the words, "ten cents." The amendment was seconded, and unanimously carried. The

original motion as amended was then voted upon, and unanimously carried. Roll call, to which each member responded with a quotation concerning music, then followed, showing all members present. After roll call the following Program on Music was presented :

1. Song : "Kellar's American Hymn" — the school
2. "A Brief History of Music" — Thelma D.
3. Declamation : "The Singing in God's Acre" — Burnette K.
4. "The Value of Music in the Rural School" — Anna K.
5. Report : "Italian Music" — Josephine F.
6. Song : "Santa Lucia" — by Girls' Glee Club
7. Victrola Selection : "Il Trovatore"
8. Report : "Music in Ireland" — Anna McG.
9. Solo : "Mother Machree" — Myrtle E.
10. Report : "German Music" — Mildred W.
11. Piano Solo : Beethoven's Farewell to the Piano" — Mildred W.
12. Report : "American Music" — Bertha L.
13. Piano Solo : "Robin's Return" — Bertha L.
14. Critic's Report — Bertha B.
15. Song : "Star Spangled Banner" — Girls' Quartette

As this concluded the program, it was moved and seconded that the meeting adjourn. This motion was carried, and the president declared the meeting adjourned. Respectfully submitted — D. P., Secretary. Dated, May 20, 1925.

**Keeping the treasurer's account.** The children should be taught (as a supplementary exercise in arithmetic — if desired) how to keep an account and how to balance it. The importance, indeed the absolute necessity, of keeping an accurate account of all public money, needs to be thoroughly impressed upon the minds of the pupils. Every penny must be accounted for — a lesson both in good business practice and in good citizenship. Here is one right way to do it. Note the form :

## TREASURER'S ACCOUNT

School Society	Willowdale School
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September 1, 1925 to June 1, 1926	
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(1925)

RECEIPTS EXPENDITURES

Sept. 1 Cash on Hand . . . . .	3 29	
Sept. 11 30 Dues @ 5¢ each . . . . .	1 50	
Oct. 30 Expense, Halloween Party . . . . .		1 27
Nov. 25 Thanksgiving Basket Sent . . . . .		2 14
Dec. 23 Receipts from Entertainment . . . . .	4 23	

(1926)

Jan. 18 Bought Robert's Rules of Order . . . . .		1 40
Feb. 12 Postage on Bulletins . . . . .		17
Mch. 17 Net Receipts — Box Social . . . . .	12 24	
April 21 Bought New Flag . . . . .		6 25
May 7 Bought Tree for Arbor Day . . . . .		1 25
May 31 Balance . . . . .		8 78
Total . . . . .	21 26	21 26
June 1 Cash on Hand . . . . .	8 78	

Signed, Mary Talmadge, Treasurer.

**The committee system.** In any well-conducted rural school the teacher will find it very helpful to make use of the committee system in carrying on the work of the school. Pupils can aid much by serving on committees; but of course no pupil should be compelled to do janitor work. Children can be so trained that they will be pleased to render such service for their school, and anxious to do so.

No committee system will work itself. If such a plan is to train the pupils, and if it is to further the work of the school, the teacher must supervise the system. Pupils will need definite instruction concerning their duties, and motives will need to be furnished in order to accomplish results.

**General suggestions.** 1. *Teach the exact expressions in parliamentary practice.* The proper thing to do is to write out the form and have the pupils commit it to memory. For example, the chairman says, "A motion has been made and seconded that a committee of three be appointed to keep the front hall in order. Are there any remarks? If there is no discussion all that favor this motion will signify it by saying *aye*; those opposed, *no*. The ayes have it and the motion is carried. I will appoint Mary, Jane, and John on this committee to serve during the month of December. Mary will act as chairman of the committee. Is there any further business to come before the meeting? If there is no further business a motion to adjourn is in order." Consult the illustration, pages 287-293, for other examples of the words to use.

2. *Make regular use of Robert's Rules of Order.* Be sure that the school has a copy of this indispensable book, and then teach and train the older pupils how to get the necessary information from the book. The table of contents and the index will be found useful. The teacher should select some of the big items and present them to the children in oral exercises. Some of the upper-grade pupils can be taught to give helpful talks on the kinds of motions, on amendments, and on other phases of parliamentary practice. This is good material for oral language work. Such talks may well find a place on the society programs.

3. *Teach and train pupils how to conduct the annual school meeting.* Show how a chairman is elected and how the clerk keeps the minutes. The teacher should find out exactly what necessary business must be done, perhaps in her particular district, and then drill the children in the correct way of doing it. A certain amount of money must be appropriated, certain repairs are to be made, some books and school equip-

ment are to be purchased. Have the children write out and make the necessary motions. The teacher will need to instruct a great deal in this connection and carefully to supervise the work. Get from your school clerk the actual items of business that were transacted at the last annual meeting. Such training is needed.

4. *Teacher and pupils may impersonate the cabinet.* The teacher acts as the president, sitting at the head of the table, while ten of the older pupils represent the different secretaries. Each pupil will need to post up on the work of his or her department; then under the leadership of the president (the teacher) the work of the various departments can be brought out in the general discussion.

5. *Let the children manage the society themselves.* The teacher must guide and direct the work and make suggestions from time to time, but the children, by holding the offices and by acting on the committees, may and must be taught to shoulder responsibilities. Arrange to have every child hold an office or act on a committee sometime during the year. All the children need the practice, especially those who are not naturally leaders.

6. *Have the program for each meeting thoroughly planned several weeks ahead of time.* The program should be made out very neatly on a good quality of paper, in ink, and posted on the bulletin board where all can see it. In this way each child knows when he is to appear and has plenty of time for preparation. The committee on special days can make good use of a correct list of such days. In consultation with the teacher plans can be made in advance in time for the suitable observance of each occasion.

7. *Be sure each child has prepared his part well.* Several rehearsals may be, and usually are, necessary. A good plan is to post a rehearsal schedule, telling the day of the week and

the hour when each pupil is to rehearse his part. It is unfair to a pupil and to the audience to have the child appear before he is well prepared. Prompting is an embarrassing procedure, and nine times out of ten is wholly unnecessary. Pupils must get the idea that they will not need to be prompted. Even timid children can get their parts and give them well. Nervousness and timidity can be overcome by suitable practice. This is one of the duties of the school.

8. *Do not try to have long, elaborate programs.* It is far better to have a short program, well given, than a long one in which the children stumble through their parts because there was not time for ample preparation. Besides, long programs become tiresome and pupils lose interest. Perhaps a program lasting thirty to forty minutes is long enough in the average rural school, and a program of an hour for the mothers' meeting or the community center gathering may be quite adequate. The reference here is to the literary program.

9. *Encourage those who keep the record books to do them neatly and in proper form.* It is well to have the secretary hand in his report to be corrected every week before copying it into the secretary's book. This means that the first draft will be on loose paper for the teacher's correction. A good book should be provided for these minutes — good paper and strongly bound. A suitable label should be pasted on the front cover. The treasurer needs a book containing debit and credit columns, and the idea of credit and debit must be thoroughly taught. Every monetary transaction is either a receipt or an expenditure. Teach and train how to balance an account. Instruction in keeping both the secretary's and the treasurer's book should be given to all members who can understand.

10. *Make the society work a real training school in democracy.* Remember that the children will some day be actually carrying on the civic work of the community. The school is the place to learn how to conduct a public meeting and to do it right. Such work is vastly more important than many other things which rural teachers spend time doing. Skill is the result of drill. Skill comes only by attentive repetition under the inspiration and guidance of clear and correct ideals. The teacher must furnish standards and then motivate the work to secure interest.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Find out what business is to be transacted in a certain school district at the annual meeting; then write out in proper form the various motions necessary. Use the method on pages 287-293.
2. Make out a good literary program of thirty minutes for the school society in a rural school.
3. Make out a fifteen-minute practice exercise in parliamentary usage, giving motions, amendments, and second amendments.
4. If you do not have a copy of *Robert's Rules of Order*, you can get one from your bookseller or through a school supply house. Use it to formulate ten useful questions, the answers to which the pupils can find in the book.
- 5. Write and commit to memory the various expressions which every competent chairman should know.
6. Write what you consider to be three essential qualities of a good chairman and the three necessary attributes of a competent secretary.
7. Name several committees which you think would be of service in a rural school. How long should a pupil serve on a committee?
- 8. Write in exact words a complete exercise of thirty minutes for the impersonation or dramatization of the cabinet. This would best be a class or group assignment.
9. There should be a place for current events on the society program. List ten current-events topics which you think suitable for children in a rural school.
10. Often there should be response to roll call with something worth while on the part of each pupil. Write a list of several kinds of suitable responses.

## 300 EVERYDAY PROBLEMS OF THE COUNTRY TEACHER

11. Indicate twenty different central themes or general topics for society programs, such as music, masterpieces in paintings, inventors, authors.

*check up 10*

12. Find the answers to these questions: (1) What is done when a member rises and says: "I rise to a point of order"? (2) What is the motion to lay on the table? (3) When is a call made for a "division of the house," and what does that mean? (4) Suppose some member is recognized and says: "I call for the previous question." What follows? (5) Is the motion to adjourn debatable?

### REFERENCES FOR THE TEACHER'S READING AND STUDY

HALL, A. B., AND STURGIS, A. F.—*Textbook on Parliamentary Law*; The Macmillan Company.

ROBERT, H. M.—*Rules of Order*; Scott, Foresman and Company, 2451 Prairie Ave., Chicago. 328 pages. Price, \$1.50, postpaid.

## CHAPTER XVI

### GENERAL EXERCISES

**The teacher's opportunity.** "The opening exercise period should be the most helpful one of the day. The children are full of expectancy. They are not tired. It is at this time that the teacher has a chance to present many subjects not often discussed in the regular class periods and which will leave a lasting impression upon the pupils if properly presented. Perhaps more time should be given to the preparation for the opening exercise period than for any other in the school. Too often this valuable period is wasted. It is not uncommon to hear the teachers ask the pupils to study while they prepare to teach the first lessons of the day."<sup>1</sup>

During this general, or opening, exercise period the teacher has an excellent opportunity to teach the following, at any rate: songs, memory selections, and poems; birds, flowers, trees, and rocks; lessons on good citizenship; hygiene and sanitation; current events; manners and morals; stories of great men and women of all time; humane treatment of animals; lessons relating to "safety first" and accident prevention.

**Planning the general exercises.** The best way to be sure of making the most of the general exercise period is to plan it out carefully in advance. If a rural teacher will have a well-bound notebook in which she can write out her general outline with lists of references and suggestions which come to her

<sup>1</sup> From the *Wisconsin Manual for Common Schools*.

from time to time, she will find that much work and worry can be saved in this way. The only thing to do is to schedule the work in general, but quite definitely, several weeks or months ahead of time. In a later part of this chapter will be found an outline for a week. This outline will be found useful; the only modification suggested here is that there be some singing every day — say a song or two at nine o'clock and another at four o'clock. In addition to outlining the work in advance it will often be helpful to post a schedule so that all the school will know what topics are to be considered, and when. If the teacher will have a strong pasteboard box of adequate size she can from time to time drop into it useful material which she clips from magazines or newspapers, or which perhaps the children bring to the school. Maybe it will be a good picture, or a poem, an ear of corn, or a leaf, or a flower. The possibilities which make the general exercise period a valuable one are many, and the more one thinks about this problem the more significant it becomes.

**Important purposes.** In a general way it may be stated that the objects sought in conducting the general exercises are instruction, training or drilling, inspiration, and entertainment. No doubt most teachers have in mind instruction or the imparting of knowledge when the general exercise period is considered. Teachers do naturally and properly aim to have children learn many things such as memory selections, poems, stories, facts of history, civics, and biography. Teaching such things will usually take up the major portion of the time. Sometimes, however, the aim will be to develop skill through training or drill. In singing there will need to be a good deal of practice under the inspiration and guidance of the teacher's example. If games are taught, attentive repetition will be necessary. If first-aid devices are being presented the pupils will need to repeat the

bandaging processes, for example, until they have acquired facility in doing. There is also a large place in the general exercises for inspirational material. This may be in the form of talks, poems, stories, and similar subject matter. Closely associated with this, are appreciation exercises — far too seldom found. Appreciation must precede inspiration. Pure entertainment is entirely proper at times, for wholesome enjoyment is indeed a rational and legitimate aim of education.

**Oral teaching.** Inasmuch as the instruction of the general exercises will be largely in the form of oral teaching, it seems proper to devote some space to the meaning and value of such teaching. The term oral teaching means, literally, "teaching by word of mouth"; but as generally understood the term is used to include and to denote any and all teaching without the use of a textbook. There are three kinds of oral teaching: direct, indirect, and objective teaching.<sup>1</sup> In direct teaching the teacher tells or talks to the pupils. If the children understand because the teacher uses plain, simple language, then the telling method is effective, otherwise, not. The indirect method is the method of asking questions. It should be noted that children cannot acquire elementary, or sense, knowledge by the use of questions. No pupil can get ideas of color or of any of the primary facts in the world of nature, for example, except by direct experience; neither can the most skillful questioning develop or draw out the fact that congress convenes on the first Monday in December.

Suggestive questioning to stimulate thinking, in order that pupils may make use of knowledge already in their possession, is always important. Teachers must distinguish between memory results and the results of thinking. "A question is a

<sup>1</sup> SALISBURY, A. — *School Management*, Chapter XV, "Class Management." Row, Peterson and Company.

demand for thought or the results of thinking." Objective oral teaching includes the use and the study of objects and the performing of experiments, such as testing soil for acidity. All perceptual activity implies the presence of a stimulus in the external world, such as a flower or an ear of corn, and the use of some one or more sense organ such as the eye, ear, nose, or tongue. Rural teachers do not use objects or concrete materials of various kinds nearly as much as they would if they understood the great need for actual *experience* in learning.

In the oral teaching of the general exercises the skillful teacher will sometimes use objects, pictures, and charts; she will sometimes *do* things; sometimes she will talk, in fact often she will talk or tell; and frequently she will ask questions to develop a new topic or to review an old one. Keep in mind that a teacher instructs, drills, and tests. Some questions are for the purpose of instruction, some for drill, and some in order to test. The general exercise period, to be really valuable, must result in the acquisition of genuine knowledge, if that is the aim. The teacher cannot be sure that the pupils possess this knowledge unless she tests them frequently. But teaching and drill must precede testing, otherwise the teacher will be pumping from a dry well.

**Certain important considerations.** In order to make the general exercise period a real contribution to the education and development of the pupil, there are certain matters which will need attention. In the first place little will be gained unless the pupils are interested in the work. The ingenuity of the teacher needs to be exercised in the choosing of interesting topics, such as will appeal to boys and girls, and in then presenting them in such a way as to maintain interest. Skillful teaching is always highly requisite. Secondly, pupils must themselves take part whenever possible. They must

be active participants rather than merely passive recipients. It will not do for the teacher simply to talk to the children. She must in some way secure an active response. That is the only way of growth and development. Then, again, it is necessary to appeal to the pupil's own personal experience. All teaching must necessarily proceed from the known to the related unknown. This known is always a personal affair; the known of John may be quite different from the known of Henry.

Another consideration is to teach only useful topics, so far as possible. By useful is meant material that will really find a place in the pupil's life in solving the problems of life. In teaching current events some are much more important than others. In health teaching the need for fresh air is tremendously more important than the number of bones in the body. Lastly, this work of the general exercises should, in as many ways as possible, appeal to the child's imagination and stimulate his thinking. This means that very definite measures will be taken to suggest and develop images from the raw material already in the child's mind. In other words there should be much more than the mere storing of the mind with memory images. These memory images will be valuable only as they are used in building up other images — scenes in far away lands, for example — or in furnishing the data for the solving of worth-while problems. Memory facts may in themselves be relatively valueless unless they are set to work to develop meanings, to bring out relations, and to make applications to the affairs of life.

**Sing every day.** Music is of the greatest significance in the lives of boys and girls. A rural teacher can do a great deal to teach and train her pupils to love good music. If the school is fortunate enough to have a Victrola, a Columbia, or some other such machine, the use of various records can furnish

standards and develop appreciations. Write to the Victor Talking Machine Company of Camden, New Jersey, and ask them for a copy of the *Victor in the Rural Schools*. This eighty-page booklet contains many useful suggestions for the rural teacher. It costs twenty-five cents at the present time.

The teacher should not begin the day without at least one cheerful song. The children should be taught to sing as nearly right as possible. Do not permit them to yell. "The child should be taught to appreciate beautiful tone in singing and to approximate this in his own singing. A large part of the value of songs comes from the tone in which they are sung. Phonograph records properly used may aid greatly in developing correct tone."

Professor Dykema, of Teachers' College, Columbia University, summarizes the steps in teaching a song as follows:<sup>1</sup>

1. Create an atmosphere and prepare the pupil's mind for the song. The teacher may tell something about the contents of the song. Sometimes a story or a picture will aid in making this presentation. Difficult words should be made clear and then drilled upon sufficiently. After the teacher has sung the song once or twice the children should have an opportunity to ask questions or to give their ideas about the song.
2. The teacher sings the song through from memory.
3. The teacher and pupils talk about the song.
4. The words are repeated once in order that each word be distinctly understood.
5. The song should now be sung through again by the teacher once, twice, or as many times as are necessary in order that the children may get it as a whole.
6. When the children begin singing parts of the song, although usually it may be found necessary to begin with the first phrase, there are times when the children may quite as well, if not better,

<sup>1</sup> In the Wisconsin Course of Study for Rural Schools.

begin with some other phrase, especially if there is a refrain, or a part that occurs more than once. Train the children to watch for the repetition of the phrase, because by this means they are greatly increasing their power of learning the song. The children should sing their part alone. If they make a mistake, the teacher should ask them to listen again while she sings, and then should allow them to try again alone. Continue this process until they can sing their part correctly alone.

7. After the children begin to sing phrases there should be no long pauses between the teacher's singing and the children's singing. After the teacher has sung a phrase, the children should sing it back with no loss of time, keeping the rhythm all the time. The teacher sings the next phrase and the children sing it after her, and so on. She continues singing phrases, with the children responding immediately, until the whole song is learned and the rhythm has been kept throughout. This is necessary in order to avoid the children's obtaining distorted notions in regard to the song as a whole.

**List of songs.<sup>1</sup>** The following list of songs is reliable ; rural teachers will not make a mistake in selecting from it. The possibilities here for enjoyment and uplift are so great that no group of children should be deprived of the opportunity and privilege of learning the songs.

*Grade I.* America (1st stanza) ; Yankee Doodle ; My Bonnie.

*Grade II.* America (2d stanza) ; Old Folks at Home ; Holy Night ; Row, Row, Row Your Boat ; Jingle Bells.

*Grade III.* America (3d and 4th stanzas) ; Old Dog Tray ; Lightly Row ; Flow Gently, Sweet Afton ; Deck the Hall with Boughs of Holly ; Round : Row, Row, Row Your Boat.

*Grade IV.* America, the Beautiful ; Dixie (1st and last stanzas) ; Blue Bells of Scotland (3 stanzas) ; Now is the Month of Maying ; Come, Thou Almighty King ; Round : Are you Sleeping.

<sup>1</sup> This list was prepared by Professor P. W. Dykema while he was on the faculty of the University of Wisconsin.

*Grade V.* Star Spangled Banner (1st, 2d, and last stanzas); Santa Lucia; Onward, Christian Soldiers; Old Black Joe; The Ash Grove; Come Lassies and Lads; Round: Three Blind Mice.

*Grade VI.* Columbia, the Gem of the Ocean; Auld Lang Syne; The Minstrel Boy; Old Kentucky Home; Blest Be the Tie that Binds; Nearer My God to Thee; Nancy Lee; Begone Dull Care; Round: Oh, How Lovely Is the Evening.

*Grade VII.* God of Our Fathers; Merry Life; Believe Me if all those Endearing Young Charms; Massa's in the Cold, Cold Ground; Annie Laurie; Good Night, Ladies; Low-backed Car; Lead Kindly Light; There's Music in the Air; Round: Early to Bed.

*Grade VIII.* Battle Hymn of the Republic; Sweet and Low; O, No, John; Love's Old Sweet Song; Stars of the Summer Night; Out on the Deep; We're Tenting To-night; Integer Vitæ (Night's Shadows Falling); How Can I Bear to Leave Thee; Good King Wenceslas; Drink to Me Only With Thine Eyes; Round: Merrily, Merrily, Greet the Morn.

#### LIST OF SONG BOOKS

AITCH, N. H.—*Golden Book of Favorite Songs*; Hall and McCreary, Chicago. Price, \$1.15.

BENTLEY, ALYS E.—*Play Songs*; A. S. Barnes Company, Chicago. Price, \$2.40.

BROWNE, C. A.—*Story of Our National Ballads*; T. Y. Crowell and Company, New York. Price, \$2.00.

CHURCHILL, F. F., AND GRINDELL, CLARA—*Churchill-Grindell Song Books I, II, III, IV, V, VI*; Churchill-Grindell Company, Platteville, Wisconsin. Price, \$.45 each.

DANN, HOLLIS—*Christmas Carols and Songs*; American Book Company, Chicago. Price, \$.45.

DYKEMA, P. W., AND CUNDIFF, H. M.—*School Music Book*; C. C. Birchard and Company. Price \$2.50 postpaid.

*Everyday Song Book*; The Cable Company, Chicago. Price, \$.10.

GAYNOR, JESSIE L. — *Songs of the Child World*, Vol. I and Vol. II. John Church Company. Price, \$1.00 each.

HOFER, MARIE R. — *Popular Folk Games and Dances*; A. Flanagan Company, Chicago. Price, \$.75.

JOHNSON, C. — *Songs Everyone Should Know; Two-Hundred Favorite Songs for School and Home*; American Book Company, Chicago. Price, \$.72.

*One-Hundred-and-One Best Songs*; The Cable Company, Chicago. Price, \$.10.

SCOBEEY, KATHERINE L., AND HORNE, OLIVE B. — *Stories of Great Musicians*; American Book Company, Chicago. Price, \$.65.

STONE, KATHRYN E. — *Music Appreciation Taught by Means of the Phonograph*; Scott, Foresman and Company. 1922. Price, \$1.00.

*Twice 55 Community Songs No. 1 and No. 2*, C. C. Birchard and Company, Boston. Price, \$.15 and \$.25.

*Note*: For each of the last two song books there is also a complete edition containing full piano accompaniments. Price, 75¢ each.

#### THOUGHTS WHICH UPLIFT. *Brief Sayings.*<sup>1</sup>

1. All true work is sacred; for in all true work, were it but true hand labor, there is something of divineness. Labor, wide as the earth, has its summit in heaven. — THOMAS CARLYLE

2. True happiness

Consists not in the multitude of friends

But in their worth and choice. — BEN JONSON

3. Great deeds cannot die;

They with the sun and moon renew their light

Forever, blessing those that look on them.

— ALFRED TENNYSON

4. Habit is a cable. We weave a thread for it each day, and it becomes so strong that we cannot break it. — HORACE MANN

<sup>1</sup> From White's *School Management*; copyright, by arrangement with the American Book Company, publishers.

5. Of our very faults we make ourselves a ladder, if only we tread them under our feet. — SAINT AUGUSTINE

6. All things come round to him who will but wait.

— HENRY W. LONGFELLOW

7. The night is darkest before the morn. — CHARLES KINGSLEY

8. Good actions ennable us, and we are sons of our own deeds.

— CERVANTES

9. To err is human ; to forgive is divine. — ALEXANDER POPE

10. He that spits against the wind spits in his own face.

— BENJAMIN FRANKLIN

11. Without courage there cannot be truth, and without truth there can be no other virtue. — ANON

12. Look up and not down, look forward and not back, look out and not in, and lend a hand. — EDWARD EVERETT HALE

13. I would rather be beaten in the right than succeed in the wrong. — JAMES A. GARFIELD

14. I would rather be right than President. — HENRY CLAY

15. It is a small thing to die, but a great thing to be depraved.

— HORACE MANN

16. There is nothing in the universe that I fear, except that I shall not know all my duty, or shall fail to do it. — MARY LYON

17. Lost yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward is offered, for they are gone o'rever.

18. Borrow neither time nor money of your neighbors ; both are of equal value. — FRANCIS QUARLES

19. A beautiful form is better than a beautiful face ; a beautiful behavior is better than a beautiful form. It is the finest of the fine arts. — FRANCIS BACON

20. Nothing is politically right that is morally wrong.

— THOMAS P. O'CONNOR

*Maxims and proverbs.* 1. A light heart lives long.

2. Never accuse others to excuse yourself.

3. A place for everything, and everything in its place.

4. Well begun is half done.

5. He who does his best does well.

6. Good health is better than wealth.
7. Being good is the mother of doing good.
8. Keep good company and you shall be of the number.
9. Fine manners are the mantle of fine minds.
10. Politeness is the outward garment of good will.
11. The right will come out right.
12. Be friendly, and you will never want friends.
13. Kind words are the music of the world.
14. What a man soweth, that shall he also reap.
15. It is better to suffer wrong than to do wrong.
16. A person good at making excuses is seldom good for anything else.
17. The wrong will end in loss.
18. Charity thinketh no evil.
19. Strike while the iron is hot.
20. A penny saved is a penny earned.

### Outline for the week.

*Monday.* Music, memory selections, and poems

*Tuesday.* Nature study and civics

*Wednesday.* Hygiene and sanitation

*Thursday.* Current events. Tell good stories

*Friday.* Biography of great men and women. Humane treatment of animals. Accident prevention.

**Current events.** Perhaps the best weekly newspaper for rural schools is *Current Events*,<sup>1</sup> which costs 60 cents a year. There are various ways of using such a paper. In a Bulletin published by the State Board of Education, Idaho, are the following suggestions:<sup>2</sup>

The aim of the study is to give an intelligent understanding of the world's progress. Attention should be given to events that

<sup>1</sup> Address 460 Fourth Ave., New York City.

<sup>2</sup> Printed by permission of State Superintendent of Public Instruction, Boise, Idaho.

are attracting attention in Congress and in the state legislature; to local matters of the county and state, such as political, social, and financial matters; to biographical sketches of local and state people of prominence; to educational topics; to achievements in science, art, and industry. The teacher should studiously avoid the discussion of petty affairs and controverted topics, and see that no papers printing an undesirable class of news are admitted to the schoolroom.

Where possible, there should be a period once or twice a week devoted to the study of current events, in which the subject may be taught as a regular class lesson. The following suggestions may prove useful:

1. Take a few minutes each morning. Let each pupil tell something he has read. Have a brief discussion of the same.
2. The teacher will assign different articles to different pupils to be reported upon at a certain date. The pupil will be required to discuss his topic and to show locations upon the wall map and to explain historical or other allusions.
3. Select certain articles to be used for a class exercise. *a.* Each pupil reads carefully. *b.* Pupils locate places, look up different words, consult histories for references. *c.* Pupils recite. General class discussion.
4. Correlation with language, geography, history, civics.
5. One pupil reads and another points out and describes the location.
6. Special questions assigned to individuals, and special reports.<sup>1</sup>

*Important* *Part*

**Book reports.** Book reports should be a regular, almost a daily, exercise in the rural school. Do not expect too much of the pupils. Gradually train them to be more critical and to give longer reports. Not all of the following points should always be covered. Good book reports are valuable numbers for the school society program, or possibly for an evening

<sup>1</sup> For a helpful plan for teaching current events consult *Current Events*, June 15-19, 1925.

program, as an occasional variety. Use the following outline:

1. Name of book.
2. Name of author.
3. Name of publisher.
4. Date of copyright.
5. Something about the author, if possible.
6. General nature and purpose of the book.
7. Especially interesting chapters or parts.
8. If a story, the main facts of the narrative.
9. Especially interesting characters.
10. Illustrations and what they teach.
11. The reasons for liking or disliking the book.

**Sixty-five immortals.** Here is a list of the names of the immortals in the Hall of Fame for Great Americans, New York City. A teacher will make no mistake to teach what each one of these sixty-five great men and women has stood for in the life of America and of the world. The encyclopedias listed in the bibliography will be found very helpful in doing this work.

George Washington ; Abraham Lincoln ; Daniel Webster ; Benjamin Franklin ; Ulysses S. Grant ; John Marshall ; Thomas Jefferson ; Ralph Waldo Emerson ; Henry W. Longfellow ; Robert Fulton ; Washington Irving ; Jonathan Edwards ; Samuel F. B. Morse ; David G. Farragut ; Henry Clay ; Nathaniel Hawthorne ; George Peabody ; Robert E. Lee ; Peter Cooper ; Eli Whitney ; John J. Audubon ; Horace Mann ; Henry Ward Beecher ; James Kent ; Joseph Story ; John Adams ; William E. Channing ; Gilbert Stuart ; Asa Gray ; John Quincy Adams ; James Russell Lowell ; William T. Sherman ; James Madison ; John G. Whittier ; Alexander Hamilton ; Louis Agassiz ; Mary Lyon ; Emma Willard ; Maria Mitchell ; Harriet B. Stowe ; Oliver Wen-

dell Holmes; Edgar Allan Poe; James Fenimore Cooper; Phillips Brooks; William Cullen Bryant; Frances E. Willard; Andrew Jackson; George Bancroft; John Lothrop Motley; Mark Hopkins; Francis Parkman; Elias Howe; Joseph Henry; Charlotte Cushman; Rufus Choate; Daniel Boone; Samuel Langhorne Clemens; James Buchanan Eads; Patrick Henry; William Thomas Green Morton; Augustus Saint-Gaudens; Roger Williams; Alice Freeman Palmer; John Paul Jones; Edwin Booth.

**General suggestions.** 1. Determine always a day or two in advance what you expect to teach on a certain morning.

2. The main thing is to become interested and enthusiastic yourself because of the fullness and freshness of your knowledge. Then you will want to teach the lesson; the children will be drinking from a flowing stream and not from a stagnant pool.

3. Probably the general exercises will most frequently take the form of a spirited, purposeful conversation. The teacher will tell interesting things and ask questions. If she has looked up her subject she will *know*, and the lesson will be successful. The children should be encouraged to ask questions.

4. Require pupils to keep notebooks in which you have them place topics, outlines, questions, diagrams, drawings. Even second and third graders can do something in this direction. Have children make collections of leaves, woods, rocks, weeds, seeds, barks, and other material.

5. In all general exercises remember that rich subject matter is fully as important as the method of presenting it. If you know precisely the points of knowledge you wish to teach *in order*, the *how* will for the most part take care of itself.

6. It is well to keep in mind that there is something worth

even more than knowledge; that is an aroused mind, a mind that is curious and seeks to know. The general exercise period affords a remarkable chance to wake up mind, to present vital, usable ideas, and to form ideals.

7. Don't forget to utilize the material you have at hand. Don't overlook that good book in the library or that weed at your doorstep.

8. Don't expect pupils to know what they have had no opportunity to learn. If pupils do not know, there is but one thing to do, and that is to teach. Facts do not find lodgment in a child's mind spontaneously. A teacher's chief business, manifestly, is to teach.

9. Don't ignore the importance of applying knowledge as much as possible. This is emphatically true in the lessons on hygiene. Does John sleep with his windows open, and does he choose his food more wisely, for example, as a result of your teaching?

10. The general exercise period offers a good opportunity to inculcate ideals of life and to mold character. Sometimes one talk, one memory selection, or one suitable song will do much to lift a child to a higher plane of life, happiness, and usefulness.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Write a list of ten different educational activities which are of value for morning exercises in a rural school.

2. Give five illustrations of the requirement that general exercises should be *seasonal* as far as practicable.

3. Write out the main topics for a series of oral lessons on health, hygiene, and sanitation.

4. Name ten objects which can be brought to the rural school as material for the opening exercises.

5. Outline a fifteen-minute general-exercise object lesson on an ear of corn.

6. Name five books from which the teacher may read excerpts in order

to interest the pupils in reading them for themselves. Why is it a bad practice for a teacher to read whole books to a school morning after morning? What is the better procedure, and why?

7. How can you make use of memory selections, brief sayings, maxims, and proverbs? Don't forget to see that correct and adequate memorization comes through imaging and thinking. List ten maxims which you can explain and illustrate.

8. Send for a sample copy of *Current Events* if you do not have one. From it arrange for a fifteen-minute morning exercise, with a dozen good questions. What are suitable news items for pupils and what should be avoided?

✓ 9. Write the outline for a ten-minute book report on *Robinson Crusoe*, *Dog of Flanders*, or *Little Jarvis*.

10. Show how the general exercise period can be used for instruction, for training, and for inspiration. Be specific, concrete, and practical in your suggestions, giving three topics in each field.

11. Two men desire to divide eight gallons of cider equally between them. The cider is in a keg which holds just eight gallons. The only measures they have are a five-gallon keg and a three-gallon bucket; how can they make the division? Do you think you could use such a problem to "wake up mind"? *Curiosities for the Schoolroom*, published by S. Y. Gillan and Company of Milwaukee, will give you some material for the upper two grades, including the above problem. You can get the book for about thirty cents.

✓ 12. If you have the *World Book* or *Compton's Pictured Encyclopedia*, the two best cyclopedias for rural schools, begin to go through the list of immortals with your upper grade pupils. Check off the list of sixty-five, indicating the ones about whom you can make three significant statements, and those of whom you know nothing.

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NOTE.—In quoting prices in the above chapter the author has used the latest available catalogues; but he calls attention to the fact that prices are subject to change without notice.

## CHAPTER XVII

### A GLIMPSE AT THE THEORETIC BASIS

**Why study theory?** There has been gradually developing during the past half century a rather complete and useful theoretic basis for the teacher's art. Much, of course, remains to be discovered; but we now have a fairly trustworthy, scientific background for modern schoolroom practice. Many books contain the necessary psychologic facts and principles, and it will pay any young teacher to master the fundamental outlines of educational psychology if she expects to practice her art intelligently. In this chapter the purpose is simply to consider briefly a few of the large, outstanding concepts which underlie a correct comprehension and handling of the learning processes, and which relate directly or indirectly to the work of teaching. Some laws or principles of teaching will be considered in the next chapter. It may be noted here that the principles and maxims discussed in this chapter are based upon the science of genetic, functional psychology. It must be borne in mind that the term psychology used in this connection means practical, applied psychology; not the abstract, more or less philosophic, science, which is usually taught in colleges and universities and sometimes even in some normal schools. Psychology, the science of mind, or consciousness, and of mental processes is one of the most practical of all subjects. A teacher who knows the basic facts of this subject is in a position not only to do better teaching, but more satisfactorily to understand and interpret the problems of human life, of her own personality, and of the personalities of her pupils.

and others. Unless a teacher sees the fundamental reasons for what she does, her work will be unscientific, uncertain, and unsatisfactory.

**What is mind?** Nobody knows the essential nature of mind or of matter. Both are at bottom the great, unexplained mysteries of life. Whence we came, what we really are, and whether we are going are questions for conjecture and not for scientific knowledge. We associate the mind with the brain; but we must remember that mind is spirit and that the brain in the skull is purely a physical thing, though indeed it is the absolute material basis for all mental development. The brain is matter. The mind is the soul, the real self. The body is the earthly, material, and transitory self. Most of us believe that at death, soul and body become separate and distinct, and that the soul lives on forever in some different sort of sphere. In other words, most people believe in immortality of soul, or mind. The mind is not in the brain. Mind and brain apparently function with certain evident interrelationships; but because of this fact we need not infer that the brain is either the cause or the container of immortal spirit. Mind and brain simply function together on this earth; we can only conjecture concerning mental activity in another realm. The older psychologist stated that the mind is a unit with a trinity of powers. These powers he called *knowing, feeling, and willing*. This was an artificial classification, which should not, however, in the author's judgment, be discarded entirely. Such classification has certain values and uses for the teacher. This old faculty psychology is now displaced by a more rational functional psychology. The modern method of interpretation makes mind a process and not a thing. Mind does not react; but is the result of reaction. La Rue<sup>1</sup>

<sup>1</sup> LA RUE, D. W.—*Psychology for Teachers*; American Book Company.

compares mind to a *stream of experience* which flows from impression to action and continues from birth to death. From the cradle to the grave we all must react in some way upon the various elements of our environment. At birth we know nothing whatever. During our earthly life we build up, or, better, *there is built up*, because of original capacity and by our native power to respond to situations, all those qualities which go to make up human personality or mind. It is not necessary that the teacher know the nature of mind. Nobody knows this, or ever can know it, probably. But it is highly important for the teacher to know how mental processes take place, and how the mind grows and develops. The proper attitude for the teacher is to accept mind as a fact, and then to study the nature and the laws of mental processes, that is, how mind grows and develops. The best teachers understand the general nature of the teaching-learning process, and are thus much more than mere mechanical imitators.

There is a decided tendency at the present time among psychologists to place consciousness or mind upon a purely biologic basis. The soul, as such, is practically ruled out of court; so that when the present writer speaks of matter and spirit, he is treading upon dangerous ground and is quite likely to be accused of being inaccurate and unscientific. Nevertheless, although the doctrine that human consciousness is much like that of the lower animals and that it has been gradually evolved through eons of time from lower types is being taught in colleges and universities, it does not seem to the author of this book that such a theory is much more than a mere scientific guess. Professor William James, to the day of his death, was greatly inclined to the spiritistic hypothesis. In thought and temperament this greatest of American psychologists and philosophers was essentially a

spiritualist (in the general sense). The writer does not believe that the materialistic, biologic interpretation of consciousness needs to be stressed in normal schools because it is thoughts, emotions, and will attitudes with which the teacher consciously deals, and not brain cells.

**Mind and body.** Mind and body are closely associated in this earthly life of ours. There can be no mental activity without the corresponding bodily, or neural, activity. The psychologist states that "there is no psychosis without neurosis." He means that mental action depends absolutely upon action of the nerve machinery. If anything goes wrong with the nervous mechanism, the mind will suffer or be hindered in its operations more or less completely. When we say, rather inaccurately of course, that every sick man is a rascal, when we think of the frequently disastrous effects of undue fatigue upon character, we are unconsciously admitting that the mind depends upon the body for its normal functioning. The essential truth always to be kept in mind is this: Mind influences body, and body influences mind. There is constant interdependence and interaction. We should strive in all possible ways to maintain the health of the body at as high a level as possible if we wish to think straight, to remember well, or to tell the truth. Headaches, stomachaches, toothaches, and other aches and pains often have bad effects upon one's thoughts, feelings, and power of self-control. Notwithstanding this fact, every person, young and old, should understand, accept, and apply the idea that mind is in some respects supreme, and can control the body in many ways. It is no credit to anyone to act as badly as he feels. Is it not our duty then, on the mental plane, in all possible ways to develop poise, serenity, and self-control; and should we not, also, in the sphere of the physical, obey the basic laws of health, knowing that soul

development depends upon integrity of body? The wise person, teacher or anyone else, recognizes the interdependence of mind and body, tries to understand the laws of mental and physical development, and then endeavors to obey them. The ignorant, foolish, and disobedient individual must suffer more or less because of his ignorance, his foolishness, and his disobedience. This is the inescapable law of life.

**Necessity for reactions.** Professor James has a most illuminating and suggestive chapter in his *Talks to Teachers*<sup>1</sup> on the need for reactions or responses as the essential basis of all growth and development. Our minds are built up day by day through our reactions to our environment. Reactions of some sort are inevitable, and *as we react so are we and so do we become*. If our responses are normal or in line with normal development, then our growth will be along normal lines. There is a close relation between impression and expression. That which is unexpressed usually dies of inanition or starvation. If we wish to keep a feeling or an idea alive and thriving, the way to do it, usually, is to act in harmony with the desired emotion or thought. The law of practice is also the law of self-activity. We grow as we respond, and in no other way.

All normal human beings are born with certain inherited, natural, or instinctive tendencies. These are specific tendencies to reaction; they constitute the starting points for our education. Our behavior, using the term in the widest sense, is either instinctive or else it is acquired. Our acquired forms of behavior are based upon the instinctive capacities; but acquired behavior also involves and implies training of some sort. It may be stated broadly that

<sup>1</sup> JAMES, WILLIAM — *Talks to Teachers on Psychology and Life's Ideals*; Henry Holt and Company.

through the processes of directed reactions we build up our great complex of human abilities, skills, dexterities, habits, or, in general, our modes of response. In teaching, we attempt to determine and to control the character and extent of these reactions or responses of the child in order to shape the type of his education. No education or training is possible without individual reaction, whether voluntary or otherwise; and good teaching consists in bringing about the self-activity of the child in such ways and to such an extent that his reactions will cause him to grow and develop in accordance with the social needs and demands of his day.

**Heredity, environment, and will attitude.** In a general way what each one of us is to-day has been determined by three great forces or factors — heredity, environment, and will. The term *will* is not used here in the old sense of a special *fiat*, however. Each of us is limited, definitely and certainly, in his physical, mental, and moral capacities or possibilities because of his inheritance. From our parents we received a certain organization of the nervous system, for example. The size of the body and of the various organs of the body are largely matters of heredity, and so far as the possibility of education is concerned the particular type of nervous system is a matter of basic importance. The laws of heredity are not to be evaded. They are there, and we are obliged to accept them for better or for worse. Nor must we forget that the hereditary influence may and does always in greater or less degree go far back of the immediate parents. It frequently happens that a boy is more like his grandfather than his father. But, accepting the laws of heredity as inevitable, the large influences for teachers to stress are environment and will — the latter in the sense of a general urge to respond *because of experience*. Given a certain type of hereditary capacity, the great question for the

teacher is one of development, of training, of education. Because of wrong education and unfavorable educational environment, because of laziness, indifference or other weaknesses of personality, it often happens that promising inherited possibilities come to naught. It is not simply our unrelated environment that makes or molds us, but rather the environment to which we pay attention, or respond. This is where the power of self-direction or *will*, if you prefer, enters the game of life. By determined effort, choosing the ideas that shall dominate consciousness, we may select a suitable environment and greatly neutralize certain undesirable, inherited tendencies. Sometimes we call this the *will-to-do* or the *will-to-be*.

The term *will* is used here in the popular, not in the strict, psychologic sense. In the modern analysis of the mental complex we do not find will as a special, distinct power of the mind. James states in one place in his *Talks to Teachers* that "All our deeds were considered by the early psychologists to be due to a peculiar faculty called the will, without whose fiat, action could not occur." But in the same paragraph this author remarks that this doctrine of a special fiat of the will has been long since exploded.

One of the best elementary discussions of voluntary or will action, from the present-day point of view, up-to-date in psychologic analysis and spirit, is that of Cameron in his text, *Psychology and the School*,<sup>1</sup> published about four years ago. This author states that "to speak of an action as due to 'will,' or, as it is frequently put, 'will-power,' is highly objectionable from a psychological point of view. What we need to know is what 'will' is and how willed acts differ from others that are not willed." Cameron agrees with James that willing, or decision, or choice, is for the most part a

<sup>1</sup> CAMERON, E. H. — *Psychology and the School*; The Century Company.

matter of voluntary attention. Those ideas which gain the ascendancy in consciousness determine our conduct. In all so-called acts of the will we are bound strictly to our past. One's experience determines the character of his choices. The entire mind is involved in willing. We cannot do as we will, in a strict sense, but our lives are determined by the sum total of our ideas, ideals, and habits.

The author of this book believes that we are *free, moral agents within certain more or less circumscribed limits*, not the mere puppets of a blind fate; that every successful teacher must of necessity appeal to the child's power of self-direction. In the work of the school there is no place for the extreme doctrine of biologic necessitarianism, no matter whether true or false. Rather boys and girls should be taught and trained to choose for themselves, and to take pride in overcoming difficulties. It is easy for the teacher to stress power of heredity altogether too much, as is now often done in the undue emphasis placed upon the so-called intelligence quotient (I. Q.) of a child.

**Education: why and what for?** "Education, in short, cannot be better described than by calling it the organization of acquired habits of conduct and tendencies to behavior."<sup>1</sup> So said Professor James a quarter of a century ago, and the statement is as true to-day as when it was first written. Life is made up of conduct or behavior, using these terms in their widest meanings. Conduct is three-fourths of life, said Matthew Arnold. We are constantly confronted with an infinite variety of situations during our waking hours, and we are as constantly responding in some way to the varied stimuli which pour in upon us and which these situations furnish. As a man is educated, or trained, so will he respond and react; for the most part each of us will express himself

<sup>1</sup> JAMES, WILLIAM—*Talks to Teachers*; Henry Holt and Company.

in habitual ways. Habits are the stuff of which conduct is largely made.

E. A. Thorndike<sup>1</sup> says that "No clear boundary separates a man's education from the rest of his life. In the broadest sense his education *is* his life." The same writer also states in this connection that "Education is the production and the prevention of changes." In this present discussion we are now thinking of changes in human beings. Cameron, in his *Psychology and the School*, states that, speaking in general terms, "Education is the sum total of the conscious changes effected in a child by his environment, and the evidence of this education is the way in which he acts in the various situations in which he finds himself."

Education is a life-long process, beginning at birth, and ending only with death. Ordinarily, we think of education as associated with schools, but we should understand that all of our environment, physical and social, all other objective influences whatsoever, material or personal, affect our behavior in some way and hence determine our education, our conduct, and our lives. Some sort of education, whether good or bad, is inevitable; it will continue whether we will or no. How important that the education of the schools be of such a character that the child's daily responses shall result in beneficent and life-giving habits. Our modes of response determine our personalities and are likewise the essential elements of our personalities.

Education for the improvement and uplift of the human race is an ever-present social need. New conditions teach new duties and, moreover, demand new types of training. Education makes for individual efficiency and personal happiness if it is the right sort of education. Education

<sup>1</sup> THORNDIKE, EDWARD L.—*Education: A First Book*; The Macmillan Company.

helps us to overcome the obstacles which nature places in our paths, in short to solve the problems of life on this planet. A child born into this present-day civilization needs to secure the tools for making the best use of his social heritage and environment, and education is for the purpose of furnishing him these tools. Education is needed also that men may learn to treat each other as fellowmen and brothers. True education develops altruistic tendencies and checks that natural selfishness which crops out continuously in even the best of us.

Many aims, ends, or purposes of education have been suggested by writers, from the days of Plato down to the most recent statements of men like Thorndike, who, for example, gives this list : happiness, utility, service, morality, complete living, or the perfection of all of each man's powers, natural development, knowledge, discipline, culture, and skill. The *social-efficiency* aim is the one now generally accepted as most nearly in keeping with the conditions and needs of modern Christian civilization. Though human beings are naturally gregarious, they need to learn *how* to live together. There is the constant need for the development of social efficiency, for both the sake of society and the welfare of the individual.

Man advances as he works in harmony with his fellows and as he strives for his fellows ; in coöperation and service each one of us finds the greatest satisfaction and happiness in life. So the school and other educational agencies succeed best in training children and youth when they consider the nature and the needs of the social organism and prepare young people for an active, participating part in this social life. That education and that life is most useful, practical, and successful which most truly takes account of what life really is and what its social demands may be. Knowledge,

merely as such, is valueless, for it is only when put to use in the service of man that knowledge really functions and becomes worthy of study and acquisition in school or elsewhere. Discipline, culture, skill, and all other aims noted above, center around, and contribute to, the realization of the social-service and efficiency aim.

**The teaching-learning process.** Colvin<sup>1</sup> says that "The learning process may be briefly described in its most general terms as the modification of the reactions of an organism through experience." "An organism which is incapable of modification in its reactions cannot be taught." Because the child possesses a physical or nervous organism capable of change, it is possible to teach the child. The child can learn through and by his experiences. The teacher determines the character and the extent of the child's experiences to some degree; thus the teacher is able to change the life and personality of the pupil in some measure.

The child begins to learn very early in life, long before he goes to school. In the home environment there are influences which are constantly molding the young child's life. The mother, of course, has a very marked influence, because of her close contacts with her child. During the first six years of life the child may not have learned at all from books, except through pictures, but because of his self-activity in response to varied situations he has yet learned much. He can walk and talk, he can play, and he can think more than we often give him credit for. He has done various chores about the home and he has, in short, learned a great deal, though not from books. He has learned from nature and from human nature. He has learned through his natural responses to the situations in which he has found himself.

All learning is dependent upon the action of the nervous

<sup>1</sup> COLVIN, S. S.—*The Learning Process*; The Macmillan Company.

system. Whenever any sort of learning goes on, because of experience, there are definite changes recorded in the nervous tissues of brain and spinal cord. The basis of the teaching-learning process is physical; because of this fact health is a matter which needs continued and careful attention on the part of all who deal with the growing child. "The starting point of consciousness is found in sensation, which has its physical basis in the irritability and conductivity of nerve tissues organized in the cerebro-spinal system."<sup>1</sup> The brain is made up of the cerebrum, the cerebellum, and the medulla. Nerves which carry the nervous impulses are composed essentially of fine filaments or fibers. The spinal cord is a column of nerve tissues from which thirty-one pairs of nerves branch off.

"The nervous mechanism includes nerve centers, nerves, and nerve ends. Nerve centers are groups of nerve cells whose function is to generate, store up, and discharge nervous energy. The brain is a collection of nerve centers known as the higher centers, the lower centers being found in the medulla and in the spinal cord."<sup>2</sup> The basic element of the nervous system is the *neurone*, which consists of a cell body from which branch off the axones and the dendrites, these latter being nerve fibers. Neurones act together and not by themselves. This coöperative action is made possible by what is called the *synapse*, which is the contact of nerve fibers of different neurones. The fibers merely come into contact or interlace, but they do not grow together.

The *sensori-motor arc* is the complete pathway of a nervous impulse. If the skin of the hand is irritated, the impulse travels to the nerve center, there is a discharge of nervous energy, and the hand is withdrawn from the source of irrita-

<sup>1</sup> SALISBURY, ALBERT—*Theory of Teaching*; Row, Peterson and Company.

<sup>2</sup> *Ibid.*

tion. The beginning of this sensori-motor process or circuit is here found to be in the sensory nerves of the skin; then the discharge occurs, and through the motor nerves the muscles of the hand and arm are set in action. Hence the name sensori-motor path or arc. Recall here the dictum of the psychologist that "all consciousness is motor," by which he means simply that motor response to sensory stimulus is not only natural, but inevitable.

Freeman<sup>1</sup> states that "the acquirement of skill may be described in more exact terms as *sensori-motor learning*." In this sort of learning there is a constant coördination between sensation and motor response. In learning to play games, to skate, to swim, to run an automobile, there is a steady interaction between the sensory impulses and the movements of the muscles in the complex act to build up the desired skill. The net result is habit. This sensori-motor learning process involves and demands the use of the trial-and-error method.

All of us have learned more than we realize by what is called the *trial-and-error* method. Many, if not all, of the skills that all of us possess were developed in this manner. In this way of learning there is no purpose, no method, nothing but blind response to a situation, the making of mistakes, the trying again, and gradually the learning by a slow, more or less wasteful process of aimless experience through elimination. The lower animals can apparently learn in no other way. All of us have acquired skill in various games, in ball playing, in handwriting, in this way, by what Freeman calls the *trial and success* method. We gradually eliminate the errors, increase the number of successes, and thus become increasingly skillful.

*Associational learning* is on a higher level than those forms

<sup>1</sup> FREEMAN, FRANK N.—*How Children Learn*; Houghton Mifflin Company.

just described. Associations give meaning to what we learn. The good teacher sees to it that connecting links are furnished so that there is a web of connected, associated, meaningful knowledge. Mechanical memorizing does not furnish knowledge which is useful in solving the problems of life. In learning almost any subject in school there is opportunity for a study of relations, meanings, associations. For example, the Revolutionary War should be studied as a body of *related* events, with connecting links woven all through. The memorization will occur as the result of rational, meaningful, associational learning.

In all learning the nervous connections are strengthened by *attentive, pleasing, or satisfying* repetition. Practice does not always make perfect by any means, as the old adage would have us believe. Osburn<sup>1</sup> says in his *Corrective Arithmetic* that: "Practice in eating breakfast food may make us want breakfast food every morning, but practice in having one's teeth pulled does not make us want to repeat the experience." And he further states that: "Practice makes perfect only when the results of the practice are satisfying to the person who is practicing." Thorndike tells us that "Satisfying results strengthen, and discomfort weakens the bond between situation and response." We repeat (even to the point of habit) the experiences that we like, and we refuse, as a rule, to repeat what we don't like. If this principle were applied more completely to the work of the school, the results of our teaching would be more fruitful and satisfactory than they now often are.

In all teaching and learning most profitable use can be made of the instinct of *curiosity* and of the laws of *imitation* and *suggestion*. Natural, normal curiosity is a legitimate and a powerful spur to action and achievement. It should be

<sup>1</sup> OSBURN, W. J.—*Corrective Arithmetic*; Houghton Mifflin Company.

encouraged and developed. Imitation has an instinctive basis and is one of the means, in its more developed form, by which all people learn much of speech, manners, and other modes of action. The child is highly suggestible; the school should be a place where that which is suggested will elevate life instead of pull it down.

In the teaching-learning process the natural curiosity of children is an important stimulus to study and progress. Curiosity is a primary instinct which impels a child to desire new ideas and new experiences. Children naturally want to know all sorts of things, and if this natural desire is suitably satisfied instead of being squelched, as is often the case, it will lead on to higher intellectual development. Curiosity lies at the basis of human progress, for, in the scientific world, in the fields of industry, and in business, men are prompted by curiosity to learn more, to overcome greater difficulties, to solve newer problems. Thorndike states that "what is commonly called curiosity is the result both of original tendencies and acquired habits." In any case, it is of undoubted service in the work of learning, and one function of the teacher is to conserve and utilize the child's normal, legitimate curiosity.

The tendency to copy a model or to respond to an idea are found both in imitation and suggestion. These are primarily instinctive tendencies, and are closely related. A child imitates when he follows the model closely, whereas in suggestion, he gets the idea and then in carrying it out uses his own individuality to a greater degree. Cameron says that: "The tendency for an observed act to result spontaneously in a similar act is always present, and its effect is to prompt the process of learning." We must distinguish, however, between the purely instinctive and the developed forms of imitation. The hunger instinct, as Betts suggests, prompts a

child to eat ; but he must learn by imitation, both conscious and unconscious, how to use his knife and fork. There is the speech instinct also ; but years of habit forming combined with imitation are needed to acquire the varied forms of the developed type of language. "The spontaneous form of imitation rapidly transforms itself into a voluntary form when the imitator purposely executes a movement similar to that which he has observed."<sup>1</sup>

It used to be thought that imitation accounted for much of a child's habits, learning, and progress. We now know that the purely instinctive imitative acts are small in number, and that they are merely the starting points of development. Thorndike<sup>2</sup> seems to prove conclusively that what we ordinarily attribute to instinctive imitation is due in reality to experience and the forming of special habits and skills through observation and the trial-and-error method of learning. There is no such thing as a general tendency to do what one sees others do, according to Thorndike and others. We do instinctively smile when we see others smile, imitate others in looking, listening, running ; but these instinctive acts are quite different from learning to write by imitation, for example. We learn to write by the trial-and-error method ; during its operation a sensori-motor habit is built up. It is, however, doubtless true that the instinctive tendency to imitate furnishes a most important basis or beginning for the learning process ; that is why the subject is discussed here. If human beings had no imitative instinct the race would be deprived of an important means of learning.

**What is teaching ?** The essential task of the teacher is to occasion, to stimulate, and to direct pupil activity, so that

<sup>1</sup> CAMERON, E. H. — *Psychology and the School*; The Century Company.

<sup>2</sup> THORNDIKE, E. L. — *Educational Psychology: Briefer Course*; Teachers College, Columbia University.

learning and personal development may result. The child grows and develops, as previously stated, only as he reacts, responds, or expresses himself. It is the function of the teacher to shape the daily program and the class procedure in such a manner that the child responds in ways which contribute to his proper development. If, for example, the pupil is to acquire skill in writing there must be much practice under the inspiration and guidance of clear and correct ideals. John will never become a good penman if he and his teacher simply talk about writing. Skill in writing comes only by giving attention to suitable, thoughtful, and adequate repetition of correct forms in correct movements. To teach is to bring about those mental processes and physical reactions which will result in the knowledge, power, and skill desired. If a pupil is to become a skillful oral reader, no progress will be made if the teacher restricts herself to silent-reading methods and devices only, and *vice versa*. To teach requires definite aim; this aim needs to be in terms of the change which the teacher desires to bring about in the child.

The subject matter is the means to the end. The teacher teaches and the pupils learn. At the present time we are realizing that the mere understanding and recitation of subject matter is far from being adequate. Unless there is some clear point of personal contact, and unless the material is adapted and appeals to the child on his plane of life and experience, there will be no genuine teaching and no useful learning. If we expect to train citizens for active participation in a democracy, we must, as teachers, develop the spirit of coöperation and the ability to secure results through individual initiative. To teach, in modern terms, is, at least in part, to develop ability in originating personal problems and in gathering the necessary material to solve such problems. The true teacher to-day also develops and utilizes

the social spirit which is the spirit of service. All habit forming, all appreciation exercises, all thinking activities should involve the central idea of human service, for the work of the school is, or should be, preparation for effective living. Moreover, experience in school, whether fruitful or useless, is life — participating, social living, not merely preparation for life.

Bagley and Keith,<sup>1</sup> in *An Introduction to Teaching*, state that: "To stimulate, encourage, and direct learning is the soul and substance of the art of teaching. It is the pupil himself who must learn; without activity on the pupil's part — without some dynamic expression of a 'will-to-learn' — the efforts of the best teachers will be futile." These writers make it plain that learning has a direct bearing upon doing, for to learn is to acquire new forms of conduct or behavior. From a physiological point of view learning is nothing more or less than the development of effective synapses between the neurones of the association and motor centers. To learn, physically speaking, is to form new bonds or connections in the nervous system. There is, however, probably no learning that is not mental, whether involving consciousness or not. To learn is to acquire ideas, or knowledge; but conduct, the ability to act, is the real test of learning. So the acquisition of ideas and the development of skills go hand in hand. Repetition, to produce the best results, must, therefore, be thoughtful, attentive repetition.

The teacher deals with the entire boy or girl, body, mind, and character; every thinking teacher understands and realizes this. She takes note daily of bodily conditions and of health habits, she teaches and trains the intellect, and she develops the moral life of the child. These three phases of

<sup>1</sup> BAGLEY, W. C. and KEITH, J. A. H. — *An Introduction to Teaching*; The Macmillan Company.

human life — physical, mental, and moral — are inextricably intermingled. Health of body has much to do with success in school work and in all of life to follow ; the possession of a sound, normally functioning nervous mechanism furnishes the basis, at least, for the development of the child's character. Moral development is also, in very large measure, dependent upon mental development, upon the ability to remember exactly, to image conditions as they are, to form clear and correct ideas, and to solve problems by a course of thinking which arrives at a well defined goal. Teaching has to do with every phase of a child's life and of his preparation for life.

**Learning through free attention.** “ Interest is the mother of attention, and attention is the mother of knowledge ; if you wish to win the daughter you must secure the mother and the grandmother,” said Joseph Cook many years ago. Every good teacher knows that she succeeds best when children apply themselves to their tasks and learn their lessons through free attention born of genuine interest. The older psychologist classified attention as voluntary and involuntary. Some writers are now using the terms active attention, passive attention, and secondary-passive attention. Betts<sup>1</sup> defines these terms as follows :

1. *Active attention* is attention forced by purposive effort, often against the inclination to direct itself to something else or simply to let the mind wander.
2. *Passive attention* is attention that comes without effort or intention, simply following inclination or the line of least resistance.
3. *Secondary-passive attention* is attention due to habit or to an attitude of mind first induced by external compulsion, but later changed into interest in the activity involved.

The terms *forced* attention and *free* attention have also

<sup>1</sup> BETTS, G. H. — *The Mind and Its Education*; D. Appleton and Company.

been used, and the modern idea is that free attention resulting from purposeful problem solving is the kind of attention for which the teacher should strive. In the best modern schools free attention is secured through well-motivated activities.

Someone has said that consciousness is that indefinable characteristic of mental states which causes us to be aware of them. I know, I know that I know, and I know that I am the knower. Then I am conscious. *And when I am conscious I must perforce give attention to something.* Attention is simply intensified or focalized consciousness. The main problem of the teacher is so to direct the program of the school, and so to control the child's activities or responses that attention will be centered upon ideas and relations which will contribute to the normal, healthful upbuilding of mind and character. A child must attend to something while he is conscious and awake. The ingenuity and the skill of his teacher will determine what he shall attend to in school. What we are interested in determines what we shall attend to, largely ; it not only shows what we are, but influences what we are to be. Our interest and interests make us or mar us for life ; a teacher can render no greater service than to see that her pupils acquire as many wholesome interests as possible.

**The perception complex.** The raw material for all knowing and learning comes through our senses. Sensation is the starting point. It is by means of sensation, plus the power of interpretation through perception, that mental growth and development have their beginning. It is a case of stimulus and reaction, of situation and response. In this topic let us try to answer the question : "What is it to perceive a watermelon?"

When do you know it through the senses as an act of perception? This question has reference to sense knowledge by

actual experience with a watermelon and not the learning of facts about the watermelon. All our elementary knowledge comes primarily and originally through our senses. Knowing a watermelon through experience is a good illustration of *sense perception*. In following the rest of this description the reader must keep in mind that the watermelon is supposed to be actually present, here and now. It is seen, touched, tasted, and lifted. The sensations through the various sense organs are interpreted to mean the object, watermelon. The melon is the perceived object, the process is perception, and the result is a *percept*, which is purely mental. Were we considering watermelons in general, as a class of fruits, the mental product would rightly be called a *concept*. But this illustration is the case of an individual, present object, making the process perception and the product a percept.

To know a watermelon, fully to experience it, we must use all of our seven senses — sight, hearing, taste, smell, touch, temperature, and muscular sense. The use of the eye as a means of knowing, in this case, is self-evident, although we should not forget that the seeing must not be limited to the outer rind. No one has truly *seen* the watermelon who has not viewed the beautiful tinted meat and the rows of shining black seeds. How can we *hear* a watermelon? Chiefly, no doubt, when one uses one's thumb or knuckles to thump the rind as a means of determining ripeness. *Taste* and *smell* are perfectly apparent, although some people may not be as discriminating as they might be if they trained themselves to acuteness of smell and taste. We *feel* or *touch* the smooth curved outer skin or rind. We press to discover hardness or softness. We say that seeing is believing. We often get better, more accurate knowledge, however, through touch; touch reinforces or aids sight in drawing conclusions. As to *temperature*, no one cares to eat a melon hot out of the sun.

We put it on ice so that we shall have the sensation of coolness in the mouth. This sensation is due not to taste, but to the temperature sense. Finally, no one has fully sensed a watermelon without *lifting* or *hefting* it. Here we get a new sensation through the muscles. When all these various sensations are fused and then interpreted, we may say that we have the percept, *watermelon*. But remember that this *sense-knowledge* of a watermelon is only the beginning and basis of much other knowledge about the melon, which may be learned through actual observation and experience, reading, or both.

**Mental imagery.** ✓ 1. An *image* is a revived or recalled mental impression or experience. If the object is present here and now and occupies space the mental product is called a *percept*, but in the case of an image, the object is absent. Try now to imagine, for examples, your mother's face, the sound of your doorbell, the smell of a rose.

2. It is impossible to have a mental image unless there has been adequate sense experience preceding. A person born blind cannot possibly have any visual images. A congenital deaf mute cannot image sounds.

3. *Memory* is the power of retaining and reproducing past mental experiences. It is due to impressions made in the nervous tissue of the cerebro-spinal nervous system.

4. *Memory and habit* are alike in that they are both dependent upon changes made in nerve cells and fibers, the neurones. They differ in the fact that memories are largely mental, while habits have to do for the most part with motor responses. You have a memory of the "Bugle Song," but you formed a complex motor habit when you learned to swim.

5. There is no general faculty called memory. We have *memories* rather than memory. Impressions are made on

various parts of the brain, and as there is an infinite variety of impressions made through the eye, the ear, and the senses of taste, touch, smell, temperature, and muscular effort, so there are any number of different memories, depending upon the nature and the extent of the original and repeated impressions.

6. *Imagination* is the power to reproduce past mental experiences and, along with this, to recombine them into something new. Memory images are expected to be as true as may be to reality. But imagination may and does transcend all reality; by the process of recombination, new and often strange or weird mental products are the result.

7. Mental imagery is necessary in memory, imagination, and thinking. Our stock of images determines our power in large measure in each of these fields. Our experiences in life determine the nature and extent of our stock of images.

8. Man differs from the lower animals largely in the character, the scope, and the variety of his images. The dog, cat, and horse, apparently, are restricted, for the most part, to their sense impressions and evidently unable to store up the wealth of experiences that man has. Human beings are the heirs of all the ages because of their power to image that which has been and that which may yet be.

9. People vary greatly in the character and the extent of their imagery. Most people are able to form good visual images; the next most common power is in the field of auditory images. A painter of portraits will have strong visual images; musicians need to be able to image impressions received through the ear. Most people find difficulty in imaging odors and tastes. Try this out to discover your own ability.

10. It used to be thought that there were pronounced imagery types such as the visual type, the audile type, the

motor type; but it is now known that usually persons who excel in one way are likely to show proficiency in all types of imagery.

11. In teaching it is important to use concrete or picture images as much as possible, rather than merely abstract or symbol images. Words mean nothing in themselves. They are primarily only empty symbols; they need to be filled with the life of reality in the form of mental pictures. This is a daily concern of every good teacher.

12. Images come to mind according to the *law of association*, that is, related ideas or experiences tend to suggest or recall one another.

13. The basic law of association is this: Mental experiences occurring together tend to recur together. Try to recall several personal illustrations of this fact.

14. If we wish to understand anything well and to keep it in mind, it is important that we bring to bear as many different senses as possible in the learning, resulting in a variety of *related images*. If clear, definite, and repeated *expression* in the best possible English is added, the result is more permanent.

15. It is useful to distinguish the reproductive or memory image from the creative, productive image of imagination. The world's progress has been the result of productive imagery.

16. Imagination cannot make something out of nothing. All forms of imagination are strictly limited to the material which the individual possesses — his stock of images. St. John, in *Revelations*, gives us a picture of the Celestial City, made entirely out of his own mental material, however. There is nothing in the picture that was not made out of earthly experiences and images.

17. Imagination is a practical power of the mind and is

used by successful persons in all walks of life. Other things being equal, that person succeeds best who is best able to visualize, picture, or image conditions as he would have them. He works toward an ideal which his power of imagery builds up and holds up steadily before his mental gaze.

18. General memory ability depends upon the nature of one's nervous system. Some people have far greater native retentiveness than others, because their neurones are more easily impressed and hold impressions better. Health is of vital importance; if one would have an active, retentive mind he must have good blood and a sound nervous system.

19. To aid memory and imagination the school needs a good equipment of objective material, such as globes, maps, and measures, in order to make the sense impression strong. Objective teaching is a constant necessity.

20. The number and the organization of associations probably has more to do with recall than anything else. It is the teacher's duty to present material in such a way that the neurone connections are many and of such a character as to reinforce each other. ✓

**Significance of habit.** Matthew Arnold said that conduct is three fourths of life. It can likewise be stated truthfully that our conduct is very largely a matter of habit. Before the age of twenty most of us become walking bundles of habits because most of our personal habits are fixed early in life. The years from ten to twenty largely make us or mar us for life. If we know the nature of a person's habits we know the sort of personality or character he possesses. Life is mostly what our ideals and our habits make it; the teacher has much to do with shaping the ideals and the habits of her pupils. Character is determined by habit, and habit, if consciously formed, at the start is a matter of deliberate intention. The basis of habit is the same as that of memory,

namely, changes in the nerve cells or tissue of brain and spinal cord. It is a problem of establishing bonds or connections in the synapses between the neurones. Professor Romanes<sup>1</sup> once wrote these very true lines :

No change in childhood's early day,  
No storms that raged, no thought that ran,  
But leaves a track upon the clay,  
Which slowly hardens into man.

Doctor James's famous and classical rules<sup>2</sup> for the formation of a new habit probably have never been excelled. Here they are : “(1) In the acquisition of a new habit, or the leaving off of an old one, we must take care to launch ourselves with as strong and decided initiative as possible. (2) Never suffer an exception to occur till the new habit is securely rooted in your life. (3) Seize the very first opportunity to act on every resolution you make and on every emotional prompting you may experience in the direction of the habits you aspire to gain. (4) Keep the faculty of effort alive in you by a little gratuitous exercise every day. That is, be systematically ascetic or heroic in little unnecessary points ; do every day or two something for no other reason than that you would rather not do it, so that when the hour of dire need draws nigh it may find you not unnerved and untrained to stand the test.” Every teacher should read the chapter on habit in James's text.

A large part of the work of the elementary teacher has to do with habit formation, in both the realm of learning and of the development of moral character. The fixing of definite responses involves and requires habituation, drill

<sup>1</sup> Quoted by REUBEN POST HALLECK in *Psychology and Psychic Culture*; American Book Company.

<sup>2</sup> JAMES, WILLIAM — *Psychology, Briefer Course*; Henry Holt and Company.

exercises, and a good percentage of the time of the rural teacher is used in this way. It is not possible here to detail an analysis of drill procedures. It is sufficient to say that the fundamental errors of most teachers are: (1) lack of specific aim and (2) a common tendency to make the habituating drill work mechanical rather than intelligent and attentive. Every teacher should study the chapter in Strayer and Norsworthy's *How to Teach*,<sup>1</sup> bearing on this important subject.

**Individual differences.** Our entire system of grades and scheme of teaching pupils in classes are based upon the assumption that children are much alike in their capacities and in their ability to respond to classroom instruction. We have gradually come to see that, while children are much alike in many particulars, one of the most striking characteristics of boys and girls, as well as of older persons, is their individual differences. So far as certain general, instinctive tendencies, common to the race, are concerned, children are to some degree alike. For example, the social or gregarious instinct is found in all children; yet we know very well that some are much more socially inclined than others. All normal children enjoy physical activity and like to play. Moreover, certain types of play are common. Practically all normal little girls like to play with dolls, and boys are likely to want to play horse or to impersonate the soldier. The desire for possession is common and instinctive, but differs in rather a marked degree among children; the fighting instinct, though general and inherent, is also a notably varying urge in boys and girls.

William Hawley Smith, author of *The Evolution of Dodd*, presented much evidence years ago to demonstrate that most of us are "born short" in certain particulars and "born

<sup>1</sup> The Macmillan Company.

long " in other ways. Nevertheless, it is entirely possible, through varying educational procedures, to bring about a development of the great majority that will result in a moderate social efficiency and in a good average of individual welfare, success, and happiness. Much depends upon the character of the schools, the teachers, the homes, churches and Sunday Schools, and the social environment provided by all other molding influences. Good hygiene — physical, mental, and moral — is of the utmost importance. After all is said and done, we are gradually learning that the adaptation of educational processes to individual needs is one of the greatest present problems of the educator. We are just beginning to solve this problem. In school work teachers find that pupils differ much in native capacity and in achievement. While perhaps the members of a given class may be grouped as bright, medium, and dull, we yet know very well that no two pupils are exactly alike in any one of the three groups. An important principle for the teacher is that instruction should be adapted to the individual. Our modern intelligence tests and other mental tests enable us to judge of individual differences more accurately than formerly.

One of the greatest contributions of modern psychologic study is that which gives us the means of discovering the manifold ways in which pupils differ. There are evident differences, mentally, morally, and physically. Children vary markedly in honesty, sympathy, power of endurance, capacity for acquiring different skills, power to work with speed, ability to grasp meanings, power of imagery, types of memory, and the like. A teacher can hardly make a more profitable study than to investigate the problem of individual differences. She will find a large literature on this subject, both in books and in magazine articles.

E. L. Thorndike has written more than any other person on this subject of individual differences. He is the recognized authority in this field. In his book on *Education*<sup>1</sup> he states that :

As a result of the differences originally present, or produced by growth and training, education has to be specialized in means and methods. Many sorts of schools are needed, not only to prepare for different careers, but also to fit different natures. Within the same school and class, variations in the kind, amount, and quality of work demanded and in the help given are also necessary. The competent teacher expects variety in human beings and examines each pupil to learn what he really is and needs. From the variety of individual human wants education selects its aims, and to the variety of individual interests and capacities it fits its means and methods.

At the present time experiments are being carried forward, notably by Superintendent C. W. Washburne of Winnetka, Illinois, to individualize instruction to an extent heretofore thought to be impossible. The movement to adapt instruction to individual needs began a quarter century ago. Starting with the Pueblo plan we have heard from time to time of the Batavia System, the Dalton Plan, and some others. The Batavia System was organized by Superintendent John Kennedy of Batavia, New York, in 1898. The Dalton Plan was started in Dalton, Massachusetts, by Miss Helen Parkhurst. Both Miss Parkhurst and Superintendent Washburne have been stimulated and guided, in large degree, by the teachings of the late Dr. Frederic Burk, president of the San Francisco State Teachers College, who did much to promote individual instruction in this country. Both in the Winnetka and the Dalton plans minimum

<sup>1</sup> THORNDIKE, E. L. — *Education: A First Book*; The Macmillan Company.

essentials, individual assignments of tasks, and the elimination of the ordinary recitation stand out prominently.

In the average rural school the classes are small and there is exceptional opportunity for individual instruction, if the teacher will take advantage of the situation. The small groups do not compensate for the disadvantages of the ungraded system of the rural school, but if we must have rural schools with all of the eight grades, rural teachers should know the need and the modern means for adapting instruction to individual capacities. There need not be so much of the deadly "lock-step" in the rural as in the graded systems, providing the teacher studies the problem of individual differences.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Several good elementary texts in psychology are listed at the end of this book. Read one through carefully. Look up all meanings about which you are doubtful. Think about what you read and try to find illustrations.

2. Distinguish between mind and brain. What is the value of a human mind at birth? What brings about the increase in value? Can a child's mind develop beyond the original, physical possibilities which are present at birth?

3. Why is it that the world often looks different to you in the morning when you feel refreshed and ready for the day? Why are you sometimes cross when you are all tired out?

4. Are you able to go on teaching, though suffering with a bad tooth-ache or headache? What are the dictates of common sense in such a case? But, it is two o'clock of a Monday afternoon. What can you do?

5. "That which is unexpressed dies of inanition." How about anger, fear, jealousy, sympathy, generosity, helpfulness? Do you want the bad feeling to die of starvation? Do you want the good feeling to grow and get stronger? Then what must you do? But sometimes you get angrier if you don't do something. Then what can you do?

6. Name five abilities, skills, and habits which make for efficient and successful living. Name five which interfere and make life harder.

7. Canvass the main facts in the career of Abraham Lincoln, and then consider the influences which molded his life — heredity, environment, will. Why was he able to rise above his environment?

8. Of what advantage will it be to a teacher to divide her school of say twenty-five pupils into bright, medium, and dull? On what basis should she make her groupings? What standards should she use?

9. A teacher teaches, trains, inspires; the three results are, respectively, knowledge, skill, and character or personality. Give illustrations of each and discuss the relative values of knowledge, skill, and character. Present-day discussions in theory do not consider general knowledge or skill, at all. We acquire knowledges and skills, not knowledge and skill. Give several illustrations.

10. Write a two-hundred-word paper telling how to improve the memory, in general. Then, write another two-hundred-word theme showing specifically what you would do to have pupils remember certain facts in arithmetic or geography. We agree that a pupil should know "for keeps" that seven plus eight are fifteen and that *separate* is so spelled, and not *seperate*. How can one fix such facts in mind? To make this matter clear, specify your steps in method.

11. Why should repetition be thoughtful and attentive, rather than mechanical? Apply.

12. Read in Thorndike's *Education* the discussion of the various aims of education. Show that the social efficiency aim involves all of the others. Why must this be true?

## CHAPTER XVIII

### GUIDING PRINCIPLES AND MAXIMS OF TEACHING

**Value of guiding principles.** Teaching is an art that can be well learned only by intelligent, purposeful practice. Like all arts, teaching is based upon fundamental principles or laws which grow out of the nature of the processes involved. Teaching is essentially a spiritual process, and has for its general aim the development of the mind of the child. Many teachers, probably the majority of teachers, do not understand the principles which lie at the basis of this spiritual process, and not a few, indeed, care but little about basic reasons. They teach in mechanical fashion. They are content to secure special methods and devices and to use them regardless of their educational meaning and value for the pupil. It is entirely possible for every young teacher to acquire a working knowledge of at least some of the underlying laws of her art ; if she does this her work will be more intelligent and more likely to be successful. Some of the essential, guiding principles are considered in this chapter. Almost anyone can learn to run a car successfully by following certain definite directions, but it adds greatly to one's interest and intelligence if the principle of the gas engine is understood. The most efficient and successful teachers go below the surface to learn how the motor (the mind) actually works and to get at the reasons for things.

**Principles based on psychology.** Principles of teaching have been discovered, not invented. They are simply statements of the way in which teaching and learning go

forward because of the nature of the human mind. All normal minds both of children and adults function in the same way and in accordance with basic laws, which are the laws of nature, not of man. Applied psychology involves a body of ascertained facts which point the teacher to procedures more or less definite and certain. Teaching procedures are based upon principles, and principles upon the certain well-known conclusions of genetic psychology. The young teacher can secure the necessary knowledge of psychology by reading certain books, several of which are listed at the end of this text. The beginning teacher needs at least some basis of psychology and the principles associated therewith, as much as she needs instruction in the various types of teaching or methods of class procedure. We all feel that a physician needs a thorough course in anatomy and physiology, as well as in therapeutics, diagnosis, and *materia medica*. A quack learns his art simply through the practice of it. We have had many quack doctors, but certainly a larger number of quack teachers. This chapter is a plea for the *intelligent* practice of the art of teaching and for the reduction of teaching quackery to the minimum.

✓ **The principle of self-activity.** No teacher can give a child any knowledge whatever. The mind of the child is not a receptacle into which knowledge, information, facts can be poured. The mind of the child is a living, growing, reacting organism. It grows and develops by what it feeds upon. The important business of the teacher is to guide, stimulate, and direct the activity of the child. As soon as a teacher understands this basic principle she will see why some of her efforts fail. A teacher can teach only as she secures adequate response from the pupil, the individual child. This principle of self-activity explains the modern stress upon such ideas as projects, problems, and motivation. Observing

experimenters in the field of education have been gradually discovering that there is no small amount of wasted effort in our daily schedules. Much of our teaching has come to naught because teachers have failed to realize adequately that our prime objective is the actual living child. All that the child becomes will always be due to his own reaction or response to his environment. Pupils can never develop through the teacher's talk. In the so-called recitation, which is now in considerable disrepute, the pupil must talk if he is to be personally benefited. Study, also, by its very nature, is necessarily an individual affair. A good teacher secures a maximum of pupil response in study and in all forms of impression and expression, with a minimum of talk by herself. Self-reliant self-activity is the road to growth, development, and personal power, and there is no other way. Any teacher can base her teaching upon the principle of self-activity by always making sure that the child *reacts* in some way; that he does not passively absorb the teacher's talk like a mere sponge. A teacher who understands the law of self-activity will talk less and teach more. She will make greater use of problem questions, both oral and written.

**✓The principle of development.** The development of the child is the end of education. The child is a living organism involving a vast complex of possibilities. The function of the school is to develop the child in such a way that he may take his place in society and do his share of the world's work. Pupil development has for its purpose increase of personal power — power to understand, to work, to enjoy, to be of service in the world of human relationships. The normal child develops naturally in accordance with the laws of his nature. In the first years of his life his time is spent largely in storing up sense knowledge. His senses are alert, and

he is curious to learn of all the world about him. The child's stock of images and ideas gained during these impressionable years will be the indispensable basis of his training later on when he goes to school. Perception, memory, imagination, and thinking, are all active even in the kindergarten years, but there is a period in the intermediate grades when memory and imagination in particular can be exercised and utilized to great advantage. In developing the child's mind the subject matter may be considered both from the logical and the psychological points of view. The successful teacher of grade children studies the psychological order of presenting topics, the order in which the child's mind can assimilate the subject matter. The inductive method of teaching, which proceeds from particular facts to definitions, rules, or other generalizations, always takes note of the psychological order of development.

Luther A. Weigle, in his discussion of *The Pupil and the Teacher*, writes as follows concerning stages of child-growth :<sup>1</sup>

Everyone recognizes that there are certain periods of development through which we pass in the growth from babyhood to maturity, and that each period has its distinctive characteristics. But there is room for difference of opinion concerning the number of periods which ought to be distinguished, and the ages at which boundary lines may be drawn.

As a matter of fact, there are no hard and fast periods, and no exact boundary lines. Growth is gradual and continuous. Individual children, moreover, differ greatly : Some enter a given stage earlier, and pass through it more quickly, than others. The most definite transition is that from childhood to adolescence. It comes usually from twelve to fourteen, and is marked by deep-seated physical and mental changes.

<sup>1</sup> WEIGLE, LUTHER A. — *The Pupil and the Teacher*; The United Lutheran Publication House, Philadelphia.

Professor Weigle suggests the following scheme of periods :

1. Early childhood — under six.
2. Middle childhood — three years, ages six to eight.
3. Later childhood — three years, ages nine to eleven.
4. Early adolescence — three years, ages twelve to fourteen.
5. Middle adolescence — three years, ages fifteen to seventeen.
6. Later adolescence — seven years, ages eighteen to twenty-four.
7. Manhood and womanhood — adult years.

The teacher will observe the principle of development by making sure that she teaches children with some regard for their periods of development.

✓ **The principle of apperception.** It is impossible to learn anything absolutely new. All so-called new ideas always have an element of the old in them. They are tinged by past experience ; it cannot be otherwise. We are bound to our past by ties which we cannot break. All learning must be in terms of the present stock of ideas which the child possesses. When new subject matter is presented to a class, no two members of the class will interpret it in the same way, because they have had a different set of experiences. The mode and the extent of interpretation or understanding will be strictly in accordance with the present mental content of each pupil. Some children will get the new idea much more quickly than others. The pupil's stock of general information will have much to do with readiness in learning, and such information varies greatly with different children. One's fund of general information is largely determined by his home life and by his social contacts outside of the home. It is important that the teacher learn the contents of her pupils' minds, for upon their present knowledge she is to build a larger structure. *Apperception is the interpretation of new ideas in terms of the old.* The apperceptive process is con-

stantly going on through all our waking hours. We are continually relating new experiences to what we already possess. A child brought up on a farm will be likely to interpret the stock show at the county fair more fully and satisfactorily than his city cousin; while the city boy may be able to get more out of a trip to Chicago, for example, because his life experiences have given him the necessary body of knowledge for interpretation. A locomotive is one thing to an engineer, but something quite different to a farmer. The engineer might find difficulty, on the other hand, in apperceiving the dairy business, due to his lack of the necessary apperceptive mass of ideas. The teacher will make use of the principle or law of apperception if she will try to base her work upon the present experience and knowledge of the individual child.

✓ **Impression and expression.** No impression without expression, no action without a corresponding reaction—that should be a basic principle for all school work. It is fortunate, indeed, that children naturally desire to express themselves in all sorts of ways. It is natural for the child to want to talk, to ask questions, to draw pictures, to take things to pieces, to make things. Unfortunately, the school has often been so artificial an institution that the child's natural, instinctive tendencies to react and to express himself have been thwarted. The mechanical recitation procedure of many schools, in which formal questioning is the predominating method, has done very much to starve the child's spontaneous desire for expression. Impression without expression is a most abortive and barren mental experience. All social effectiveness demands that all of us talk and act in a great variety of ways and to the extent of our ability. Life has no human meaning unless there is outgoing expression as well as incoming impression. Pupils must

become active participants and not simply passive recipients, if they are to be trained for personal happiness and for social service. We do not actually and completely know anything until we express it in some way, or in several ways. Doing, action, responsiveness — all are involved in the project method of teaching and learning, which now looms large on the educational horizon. Life is dynamic, not static ; the work of the school must be so shaped that pupils *express* their ideas, if there is to be genuine training for solving the problems of life. Memorization is not sufficient, thinking does not go far enough ; in every good school there are, besides these, many social, coöperative, expressive activities going on daily and hourly. The teacher must take note of the principle of impression and expression if she would have the act of learning symbolized by the complete circle — one arc, the impression, and the other arc, to complete the circle, expression.

**Learning through interest.** What we are interested in is what makes us, what determines the outcomes of our lives. If we are interested in small things we shall be small in mental perspective and in development. Moreover, our interests are a very good criterion by which to judge our personal worth, our characters or personalities. What do we do when left to ourselves — when we have a holiday, for example? How do we use our leisure time? These are significant and searching questions. One of the largest results of a course of training are the fine, the abundant interests, attitudes, or ideals developed in pupils by the teacher. If a teacher succeeds in giving to boys and girls a generous range of wholesome, uplifting, noble interests, she has been of life-long benefit to them. There is vastly more to teaching than the mere inculcation of facts ; school work is more than drill for skill. Skills are of utmost value, but so are ideals and atti-

tudes. In teaching the best teachers strive to get the point of contact with the mind of the child. This means that the teaching proceeds on the basis of the child's spontaneous, natural interests. Attentive repetition and learning is the only kind that counts, but such attention must be free, the result of interest, and not forced. Forced attention as a constant requirement is impossible, and does not get us far on the road to knowledge. Learning through interest is the only worth-while learning. This is the explanation of the effectiveness of the problem-project procedure. Any teacher can base her teaching upon this principle by seeking natural intrinsic interests, and by making use of the better types of motivation.

**/Suggestion and suggestibility.** It is a saying of the psychologist that: *All consciousness is motor*, which means simply that ideas tend to move outward into action. This does not necessarily mean visible muscular action, however. It is perfectly natural for all of us to have expression follow impression. When impulses travel inward over sensory nerves there is sure to be the corresponding action, or at least tendency to action, through a motor nerve or tract; hence the expressions, *sensori-motor action*, *sensori-motor arc*, and *sensori-motor learning*.

By suggestion we mean the tendency of all human beings to respond, more or less readily, to outside stimuli or ideas, or in the case of auto-suggestion, to follow the lead of ideas suggested to one's self. Suggestion is closely related to imitation. The sight of a person yawning tends to induce others to do likewise; when we see persons eating, our own hunger is likely to be stimulated.

All of us are constantly under the influence of suggestion, but children are especially suggestible because of their inexperience and lack of ideas, which in older people tend to

block or check suggested ideas. As we grow older we gradually learn not to act upon the suggestions of the moment. We develop inhibitory centers, so that when a suggestion comes to us, we form the habit of deliberating. Thus we are relieved from the bondage of being mere imitators. We resist the tendency to copy the strongest model that may be offered. We thus become increasingly self-determining. Look up the terms *suggestion* and *inhibition* in the dictionary, and read up this subject in two or three reliable textbooks.

The law of suggestion is one of which every teacher makes daily use, whether conscious of the fact or not. She is herself being influenced, for the most part quite unconsciously, by suggestions coming from a multitude of sources — her home, her mother, her boarding place, the books she reads, the people she associates with. In the case of her pupils the entire school environment, including the teacher's personality, is a constant suggestion to the children for better or for worse. These boys and girls are peculiarly open to suggestion, and because of that fact, their lives are being molded, for weal or for woe, by all that the school has to offer. As the pupils have small power of inhibition, due to immaturity and inexperience, they become the victims in large measure of what is suggested to them day by day. How important, then, that the school offer suggestions of the right kind.

An observing teacher soon discovers the nature and the consequences of *contra-suggestion*. A teacher once told her school, just before the noon hour, that no pupil would be allowed to climb on the roof of a certain shed just across the road. Up to the time the teacher mentioned the shed no child had thought of getting upon the roof. Before the noon hour was over, the roof was literally covered with boys who had merely acted upon the teacher's unwise suggestion.

With some people, even children, contra-suggestion partakes of the nature of contrariness. A mere suggestion will in this case frequently result in a pronounced tendency to do the opposite. Contrariness or obstinacy quickly develops into a bad habit. Many people are stubborn without knowing what is the matter with them.

Because of the law of suggestion, it is unwise for a teacher to make certain kinds of rules. A negative, forbidding rule, with a penalty attached, is like the waving of a red flag to a boy of normal instincts and desires. He may be naturally well-disposed, but such a rule is a challenge to his natural desire to try things out and to take chances. Beware of *don'ts*, of telling children *not* to do things. The safest plan is a program of positive activities along right avenues of development.

Jastrow states, in *The World Book*,<sup>1</sup> that: "Suggestion refers also to the process of inducing consent without arousing opposition. Children must be guided by suggestion as often as by command. As soon as the will realizes that it is being led, it asserts its self-direction; suggestibility is a ready acquiescence, a will that yields easily to another's direction." Suggestion plays a prominent part in the practice of every physician, whether consciously or unconsciously. As Jastrow truthfully says, "A sugar pill may be given as medicine, with a suggestion that it will have a desired effect, and the effect follows." For various reasons this is not always the case, however. There are notable exceptions. A teacher will observe the law of suggestion by taking care as to the character of the ideas which spread contagion in her school.

<sup>1</sup> JASTROW, JOSEPH — From the article on "Suggestion" in *The World Book*. Printed through courtesy of the publishers, W. F. Quarrie and Company, Chicago.

**The principle of association.** In all effective teaching ideas must always be related to each other in such ways that recall is possible through the law of association. There is the law of contiguity, for example: "Ideas or experiences occurring together tend to recur together." But it is the business of the teacher also to make use of the other laws of similarity, cause and effect. For example, in teaching the Revolutionary War, the entire succession of events from the various causes, remote and immediate, up to the capture of Yorktown and the treaty of peace, can be woven together in one complex of related facts so that the pupil can hardly fail to remember. The opposite method of study, by which events are studied as isolated and unrelated occurrences, results in a conglomeration of unassociated ideas without beginning or end. All rational memory and all power of clear and vivid imagination are dependent upon the possibility of recall according to the principles of association. The teacher shows her skill in a presentation of subject matter that is pertinent, or logically related to the work in hand. She constantly asks: "Why?" "Like what?" and "What of it?" as one writer aptly suggests. The use of this principle of association results in definite, logical organization, leading to the making of good outlines of the topics studied. Such outlining may be carried to excess, but the average rural teacher is certainly not so tempted. Closely related to this problem of association and organization, is that of suitable review. A good review is often a new view, as is suggested in the next chapter. There is need for frequent review and also for repeated reference to fundamental, elementary notions and principles in order that ideas may be firmly related or associated together. Then one idea or group of ideas tends to suggest the rest. Thinking, association, and ready recall are all bound together in good teaching.

and effective learning. A teacher will make use of the principle of association if she tries constantly to relate items of knowledge by the use of natural connecting links.

### *Teaching Maxims*

(1) "*Teach one thing at a time.*"<sup>1</sup> Only one thing should be taught at a time, and an accumulation of difficulties should be avoided. One thing may mean one branch, one topic, or a single point in one topic; the latter is intended, and the maxim directs to teach each point completely before passing to the next. To follow it the points will have to be arranged in their natural order, which is the order in which the child can understand, so that in teaching one we may not imply another not yet mastered." Many a teacher and many a student has found the work difficult because of failure to concentrate upon items of knowledge one by one, and to master each before attempting to pass on to the rest. Difficulties can usually be overcome readily enough one at a time, but not in the mass. Some teachers are in a constant maze of inadequately taught and partially mastered subject matter.

(2) "*No exercise should be so difficult as to discourage exertion or so easy as to render exertion unnecessary.* Beget in the pupil a sense of progress, and a sense of his own power to do, as the proper stimulus to exertion." It takes a good deal of experience and good sense on the teacher's part to lay out the work in tasks of suitable size. A young teacher is perhaps quite as likely to require too little as to ask for too much work. Children should be kept busy with work which they can do, and a large function of the teacher is so to divide the subject matter and so to apportion the study lessons, that all will be stimulated to do their best. Carefully directed study activities will go a long way in solving this problem.

(3) *Instruction must always proceed from the known to the related unknown.* There is no other way of really teaching, for this is the

<sup>1</sup> These maxims were suggested to the writer by the first state manual which he used as a beginner, and partly by A. SALISBURY's *Theory of Teaching and Elementary Psychology*, published by Row, Peterson and Company, Chicago.

way the human mind develops. It is the teacher's function to find out what the particular child now knows and to make this the starting point for presenting new material. If a teacher fails to do this she wastes her own time and also that of the pupil. Let us suppose that the teacher is trying to have her pupils image the Amazon River. It will be necessary to start with a known stream of flowing water; if the pupils have had experience with a good-sized river so much the better. In any case, the idea of immense breadth and depth and volume must be developed by referring to known magnitudes, such as the distance from the school to the child's home, or the depth of a known gully. The desired image is built up out of the raw materials in the child's present possession.

(4) *Successful teaching always proceeds from the simple to the complex.* It is often difficult to realize what is simple and what is complex to the child. In grammar it is certainly true that no child can understand the nature of a complex sentence who does not know the meaning of a simple sentence, for the complex sentence involves the idea of a clause. A clause has a subject and a predicate, whether it is a principal clause or a subordinate clause. A child cannot understand the complex sentence unless he knows clauses and subject and predicate. In arithmetic the gradation of the successive difficulties or steps in the process of division is a good illustration of the maxim. If the steps are well graded the pupil will pass on from victory to victory. Such splitting up of the problem of division into its simple elements is now sought in modern texts.

(5) *In all teaching proceed from the concrete to the abstract.* A particular verb is concrete, but the definition of *verb* is abstract. The general idea of fraction cannot be developed until the pupils have had experience with many concrete examples of individual fractions. To proceed from the concrete to the abstract is practically the same thing as proceeding from particular to general; all inductive teaching is of course concrete teaching, because it necessarily starts with concrete particulars. The idea of a committee as taught in civil government is abstract; but if the child has served on a committee in connection with his school society, he has

been taught concretely and inductively the meaning of committee. A child must be brought into contact with concrete, particular cases, for experience is the only completely genuine way of learning anything.

(6) *All elementary basic ideas must be taught objectively.* Teach things, not mere words. There is a constant danger and temptation in teaching that words will become the substitute for ideas. Whether the word comes first or the idea first is not the important matter, but rather to make the connection between the idea and the word so certain that the word will always call up the idea. Many teachers fail to realize that all primary ideas like those of color and form, all sense knowledge, in fact, must be gained through the senses. Children can know flowers, trees, birds, and rocks, for example, only through actual experience. It is a red-letter day in a teacher's life when she quits teaching words and begins to teach things.

(7) "*The teacher's business is to help the learner to teach himself.* Avoid doing the work for the pupil; teach him in such ways as will help him to teach himself; lay out the work for him, supply motives for self-exertion, develop power of self-criticism." The teacher should develop the spirit of self-reliance in all possible ways. Pupils should realize that no one else can learn the lesson for them. For whatever we ever gain of knowledge, power, or skill, we must pay the price, sooner or later. When a child understands clearly that he must actually *earn* the abilities which he is truly to make his own, then school life will have a new meaning for him and natural motivation will take the place of artificial incentives.

(8) "*Instruction both in matter and method must be adapted to the capability of the learner.* There is a natural order in which the powers of the mind should be exercised and the corresponding kinds of knowledge taught." It was formerly thought that subject matter for the lower grades should be simply a diluted form of upper grade material, but we now understand that there should be a vital difference in the character and content of the material. There are various stages in the powers of appreciation and assimilation; the six-year-old needs different teaching treatment from

that of his ten-year-old brother. In the lower grades a great deal of inductive objective teaching is necessary. As pupils grow older they may make greater use of their stock of ideas and images; from these the general notion can gradually be developed. This general notion, or concept, is needed in order to do thinking on a level above that of the child mind.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Give illustrations of the statement that: "this principle of self-activity explains the modern stress upon projects, problems, motivation, and the like." With the subject *Corn*, for example, indicate procedures which will require pupil activity and secure pupil coöperation. Is a pupil grasping corn when he is reciting from a book about corn?
2. Make out a logical and complete topical analysis of the subject of *nouns*. Can you use such an outline in teaching nouns? What will the first lesson consist in? Is the law of pupil development logical or psychological or both? Distinguish inductive from deductive teaching and illustrate. Are nouns taught both inductively and deductively?
3. In teaching a subject like civics, for example, what use can a teacher make of the law of *apperception*? Compare country children and city children so far as the application of the law is concerned. Has the city or country child the larger apperceptive mass for interpreting such an idea as public sanitation? Give several illustrations. Look up *apperceptive mass* in the dictionary.
4. Two young men from New York City had never seen a field of corn and knew nothing about growing corn. Their conception of corn was very meager and inadequate. They were shown a field of corn of about six-weeks' growth from a train in South Dakota. Do you think they now knew corn? Compare what comes to your mind when you see an ear of corn with the complex of ideas suggested by such an ear to the mind of an expert corn grower in the state of Iowa.
5. "All social effectiveness demands that all of us talk and act to the extent of our ability. Life has no meaning unless there is outgoing expression as well as incoming impression." Discuss the truth and application of these statements. Can we not learn, and be passive? Why and how does John's knowledge of his school district differ from his knowledge of the city of London? What about learning in the school society? What kind of learning is this?

6. Which is more important and why: that a pupil learn all the facts about our human anatomy and physiology, or that he become greatly interested in healthful living? Compare learning all the bones of the body with the tremendous conviction which prompts a boy always to sleep with his windows open.

7. How would you teach the Spanish-American War so as to make use of the laws of association of ideas by similarity and by cause and effect? What causes led up to the war and what was the general result? What were the specific outcomes of the war? How did Dewey happen to be at Manila?

8. Which is the more complex: 250 divided by 5 or 2150 divided by 5? Which is harder: 126 divided by 6 or 1236 divided by 6? Do you think *kitty* is harder than *cat* for beginners? When is anything hard and when easy?

9. What is concrete and what is abstract to a child? Are the duties of the chairman of a deliberative assembly concrete or abstract to you? Discuss. Is  $\frac{1}{2}$  abstract or concrete to you? What about the little second grader?

10. Which is the better definition of adverb: An adverb is a *how*, *when*, or *where* word, or, An adverb is a word that modifies a verb, adjective, or other adverb? When would you have occasion to use both definitions in a rural school? What should always precede the learning of any definition? Of what value is a good definition? How do you use it?

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## CHAPTER XIX

### TEN TYPES OF TEACHING

THERE are various types of teaching procedure ; teachers will find it profitable to study the different activities which characterize the teaching process. For a long time teachers found it helpful to think of their work in terms of instruction, drilling, and testing ; but in present-day discussion of class procedure, we consider several types of teaching and not simply these three teaching processes. Pupils are instructed, drilled, and tested in order that they may learn and know ; but such learning and knowing should involve thinking whenever possible. Memory is far from being the only activity of the pupil's mind, as some teachers seem to assume ; for the most part effective memorization should be a by-product of thinking, or problem solving.

In all the work of teaching there should be discrimination concerning the mental end-product which the class work will produce. Sometimes percepts, again images, both of memory and imagination, and concepts or general notions are to be built up in the pupil's mind as a result of the teaching. His judgment is to be developed through the processes of analysis and inference in the handling of suitable subject matter. That is, he is to be trained in thinking, which involves judgment. In studying a stream of water there may be actual concrete, objective work in which the child perceives, or actually experiences, the flowing stream ; or he may call to mind the river where he has gone fishing several

miles from his home. If the work is on South America, the teacher will need to develop images of a coffee plantation, for example. These new images must be made from the raw materials of the child's particular memory images. The images of constructive imagination can never be made out of nothing at all.

These types of teaching are not methods, in the older sense of the term, but rather the various procedures used by the teacher to secure those ends in pupil development which she desires. If a habit is to be fixed, the drill exercise is the means; if the child's moral, æsthetic, or emotional life is to be influenced, then the teacher must use an appreciation lesson, and so on. In writing this chapter the author is indebted to the works of Lida B. Earhart<sup>1</sup> and G. D. Strayer.<sup>2</sup>

### I. THE ASSIGNMENT LESSON

**Purpose.** The purpose of this exercise is to get pupils ready for successful independent study of the lesson. The members of the class are to be so prepared through directions or by means of definite teaching that they will be stimulated to attack the problem before them with confidence and effectiveness. A good assignment prevents much waste of time and effort on the part of both teacher and pupil, because it sets a definite goal and gives the means for reaching the goal.

The successful assignment gets pupils ready to do any sort of work outside of class. Many teachers assign only book lessons; but a skillful assignment also takes note of what the pupil may do by himself in collecting materials, making outlines, practicing his music lesson, making sketches,

<sup>1</sup> EARHART, LIDA B.—*Types of Teaching*; Houghton Mifflin Company.

<sup>2</sup> STRAYER, G. D.—*A Brief Course in the Teaching Process*; The Macmillan Company.

drawing maps, coloring outline maps, gathering weeds, collecting seeds, and so on. Sometimes the assignment will require pupils to consult other people, to observe natural phenomena, and the like.

**When?** The assignment may be made at the beginning of the class period, during the period, or at the close. Some of the best assignments grow out of discussions of the class which suggest profitable problems for investigation. If the next unit of work has no vital connection with the present subject matter, then the assignment may come at the beginning. Usually, perhaps, the teacher should plan to make a careful assignment at the close of the period, but this does not mean a hurried assignment at the last minute. Sometimes the entire period may be profitably used as an assignment exercise. This will be a preparatory inductive assignment lesson — a type of teaching exercise which is needed in our rural schools.

**Nature.** A clear assignment makes evident to the pupil what the purpose of the work may be. Some assignments may be individual, although most of them are doubtless for groups or for the entire class. Many teachers now make much of individual differences in adapting assignments to varying capacities. A good assignment produces a desire to do the work, and this emotional element is important from the standpoint of motivation.

**Assignment notebooks.** Pupils in the four upper grades can be taught to keep neat and accurate assignment books, and this is good language training. The teacher should carefully instruct pupils in taking notes and in setting down the assignments in clear, definite form. By use of the blackboard the exact way of doing this may be taught to the older children, and this is a good way to use class time, when necessary.

## II. THE RECITATION LESSON

**Scope.** This type of exercise or lesson is much overdone by the average rural teacher. Most teachers look upon the class period as a time for simply testing upon the assigned subject matter of the text and seem to expect that the children will memorize the text more or less. By the recitation lesson is meant a teaching exercise in which pupils report upon material or information that they have gathered from various sources — chiefly the textbook in the rural school. Many rural teachers do not use the material at hand in other books, in magazines, bulletins, and encyclopedias.

One of the greatest needs of the present time is the use of informational material which pupils gather for the purpose of solving personally interesting and practical problems. As a matter of fact, in life outside of school the chief use of knowledge is to aid us in solving the problems of life.

**The use of sources.** Pupils need to be constantly trained in proper ways of gathering facts and of effectively reporting them in class. This is excellent language training, but such reporting should be given meaning and value by relating it in some way to the solving of problems, or at least the answering of specific, concrete, practical questions. Moreover, pupils should secure their information from a variety of sources. They should be taught to judge of the worthiness or reliability of the source and properly to evaluate the statements which they make. Facts vary greatly in importance. Some are essential and some are trivial. A daily paper is usually a less reliable source of information than a carefully edited magazine. Some dictionaries are recognized authorities, others are not. Some textbooks, even, need careful scrutiny, and pupils should be taught to challenge statements.

A well-kept notebook in which the pupil sets down the large facts which he has found is a valuable part of the training. Pupils need to be taught and trained in the matter of note taking, organization of material, and the making of outlines — all of which constitutes an art in itself. Read the book by Kitson on *How to Use Your Mind*.<sup>1</sup> In all of this recitation procedure, skillful teacher's criticism will further the power of self-criticism on the part of the pupil.

### III. THE REVIEW LESSON

**Fixing results.** In order that the results of teaching may become a permanent mental possession it is necessary that processes be repeated. Many a teacher complains that certain children or certain classes of children have great difficulty in learning the products in multiplication, for example. Many times such a teacher does not recognize the need for intelligent reviews. In the field of habit the need of review in the form of repetition or drill is self-evident ; but it is equally true that in thinking and in the work of appreciation new views and repeated views are necessary and vital, in order that meanings may become properly related and affect the conduct of the child.

**Reorganization.** One of the most important elements in good review is the reorganization of the mental content. The best review is not simply a repetition of former knowledge or of the former mental process. A good teacher secures a profitable review as she presents subject matter from a different angle. The review will show both pupils and teacher what is lacking in order to establish exact knowledge. A good review does more than prepare pupils for examinations ; it gets them ready to assimilate new knowledge and

<sup>1</sup> KITSON, H. D. — *How to Use Your Mind*; J. B. Lippincott Company.

to make profitable use of what they now possess. Reviews ought to be frequent, but they should not usually come at regular, stated intervals. They should rather be given as the work of the class demands, to be determined by the units of subject matter.

**Topical outlines.** One profitable result of a good review is the preparation of a general outline of the subject matter covered. Such an outline should grow out of class discussion. If pupils understand the value of outlines and make use of them in their learning, the knowledge which they acquire will be better organized and thus more completely retained. Knowledge is not likely to function unless viewed and understood in its essential relations.

#### IV. APPRECIATION EXERCISES

**Value.** It is quite evident, as supervisors can testify, that most teachers do not consciously make use of the appreciation lesson in teaching literature, music, pictures, and such subjects. We have come to see that the appreciation and the enjoyment of music and art are significant values for which teachers should strive. Memorization may often come as a by-product ; but whether it does or not, it is clear that appreciation is of greater value than mere memorization without appreciation.

Some day we shall understand more clearly than now that the child's emotional attitudes, his likes and dislikes, may be highly significant results of teaching. His success in life will be determined not only by his knowledge and his ability to do certain things, but also by his social viewpoints and associations and by his pleasures and forms of amusement. Teachers can render a valuable service by developing in the child the power to enjoy the various elements of his environment, both social and æsthetic, which are enjoyed by trained

and cultivated people. It is a significant day for any person when he really learns to love a fine poem, or a beautiful picture, or a high-grade musical composition, or a masterpiece in any field of art.

**The foundations of appreciation.** In all this work of appreciation the teacher needs to set the desirable example. If she does not like a selection of music, a certain poem, or a picture, she will not be successful in getting pupils to like it. Here is an opportunity for sincerity and honesty. There is not a little camouflage in the way some people, including teachers, pretend to appreciate when they really do not.

At the bottom of genuine work in appreciation lies the necessary basic knowledge. A child cannot appreciate a poem until he understands it. Of course the analysis must not be carried too far, lest it result in distaste ; but no person can appreciate what he does not grasp more or less clearly. Teachers need to realize, too, that growth in power of appreciation is often a slow process. To-day a pupil may appreciate only pictures of pronounced color or music of the jazz order. To lead the child out of his present limited area of appreciation into a higher and wider realm will be the ambition of every thoughtful teacher.

## V. THE STUDY LESSON

**Study-lesson factors.** Since we have had the benefit of the investigations by F. M. McMurry, Lida B. Earhart, and others, we know that study is a complex affair ; if teachers are to teach children how to study, they must learn the nature of study themselves, which is no small undertaking. Study involves thinking as well as memorization, and thinking is a process of many phases and angles. Sometimes in study the child seeks information which he will use in solving some problems which he has in mind. Earhart states that

the factors in study are realizing a problem, formulating an hypothesis, collecting and organizing data, exercising doubt or maintaining independence in opinion, deferring conclusions, verifying and applying conclusions, and memorizing.

For the average rural teacher, who bases her work largely on the textbook, perhaps the best thing to do is to make daily use of study questions. These questions should, as much as possible, be in the nature of problems ; they should largely be *how* and *why* questions. *What, where, and when* questions are, of course, necessary also ; but they should be related to the others by way of furnishing the facts needed to solve the problem.

**Working with the children.** It will often pay a teacher to have a study recitation during which she will work with pupils in the mastery of subject matter. With the children before her the teacher will work out both questions and outlines. The children will be taught to evaluate book statements and to arrange them in logical order of sequence. Teacher and children have books open ; the aim will be to understand the text and then to organize and apply the facts therein presented. The meanings, relations, and the applications of the textbook statements to life situations should constitute the material for the discussions of entire class periods.

Between classes a rural teacher will often find it profitable to supervise the study of the pupils. She should pass around and see just what the children are doing in preparing their lessons. If the teacher does not teach the pupils differently, they will simply try to memorize the text regardless of values. If a rural teacher can teach pupils to organize material, to test conclusions, to collect and evaluate data, to find problems, to memorize thoughtfully, to make out good problem questions, and to outline, she is doing much more than most teachers

accomplish. This subject is discussed more fully in Chapter XXIII, on *Teaching the Art of Study*.

## VI. DRILL EXERCISES

**Purpose.** The drill exercise may be called the habit-forming or habituation exercise. The purpose of drill is to develop skill. Teachers find it necessary to drill pupils in order that certain knowledge and certain processes may become fixed in mind. Pupils must be drilled in writing, spelling, and in the combinations in arithmetic, for example. E. E. White stated that drill as a teaching process has for its chief end the training of power and skill, especially skill in the several school arts. This writer says that "it is not enough that pupils be once led to know facts or even to reach a truth by inductive steps under a teacher's guidance. They must also acquire the power to reach it again with less guidance and greater certainty. These results are secured by repetition or practice. In elementary schools the drill absorbs fully three fifths of teaching time and effort."<sup>1</sup>

**Effectiveness.** To be the most effective drill needs to be intelligent and attentive repetition — the opposite of mechanical repetition. Teachers and pupils many times go through drills in a thoughtless way that results in poor learning and little retention. In the best practice the pupil will visualize the end. In playing quoits, for example, the boy who keeps his eye on the stake will, other things being equal, be the one most likely to make a ringer. In shooting at a target, the successful shooter aims to hit the bull's-eye. In singing, drawing, map-making, writing, he succeeds best who is best able to picture an ideal end toward which he aims.

<sup>1</sup> From E. E. WHITE — *Art of Teaching*. Copyright, by arrangement with American Book Company, publishers.



**Speed and economy.** In modern practice speed exercises play a large part, and various devices are now used to stimulate pupils to excel their previous efforts. We now know that the best readers are the most rapid ones. At the present time several texts make much of speed exercises in arithmetic, and most manuals call attention to their importance. In the most economical drill work the teacher makes an effort to eliminate mistakes. Errors must be reduced to a minimum if the most satisfactory results are to be obtained. Mrs. Harvey, of the famous country school near Kirksville, Mo., does not permit her children, even the little ones, to make mistakes if she can prevent it. Practice makes perfect when it is perfect and pleasurable practice. Thorndike's law of effect makes it plain that pleasant, satisfying results in any form of reaction fix the desirable bonds or connections more readily and surely.

**Drill adaptation.** A good teacher knows when to stop a drill exercise. Nothing is gained by keeping children at a drill when they are tired of it. Come back some other time. There are plateaus in the attainment of skill ; William James says that we learn to skate in summer and to swim in winter. What did he mean ? He meant that the neurone synapses bonds or connections started in one season and grew and strengthened during other seasons as they were nourished by the blood supply. Thorndike and others now express some doubt as to the validity of this view, however ; but whether Professor James was right or wrong, it is an undoubted fact that frequent short periods of drill with intervals of rest produce the best results. Drill on those topics which most need drill and drill those pupils, also, who most need it. In order to do this, the teacher must know her subject matter and her individual pupils and apply intelligence to the work of drilling.

## VII. THE TELLING METHOD

**Limitations.** The telling or lecture method has a large place in the field of instruction, even though it is a much abused means of imparting knowledge. The risk of the telling method is that the pupil will not really understand or get the pictures or ideas which the language is supposed to convey. No teacher can, of course, directly convey any knowledge to any child. When the teacher talks, or when the child studies or reads a book, the talking or the reading will prove successful only in proportion to the child's ability to interpret the words and sentences. For example, if I state that "the kangaroo and the opossum belong to the same family," the sentence is meaningless if the child cannot image both kangaroo and opossum and then see and understand the way in which they are alike. Words are often mere verbal husk, or, to use another figure, "sounding brass and tinkling cymbal." A true teacher always takes the greatest pains to have the child image the situation as depicted by the words.

It is quite apparent that the teacher must instruct by talking and that pupils must learn much also from the printed page, through the medium of which the author speaks to the child. The experienced teacher knows when to tell and when to use some other method of teaching. It is perfectly foolish to talk about an oak tree or the goldenrod when the teacher knows that the only way to teach such things is through the use of objects or pictures, by direct observation. Telling can never take the place of a development exercise, though the latter takes much more time. A child cannot be told off-hand the nature of a fraction or of the process of addition. Such matters must be taught concretely, objectively, inductively, by means of direct, personal experience. This takes time, but there is no other way.

### VIII. TRAINING TO THINK

**Particular and general.** When we think, we are usually in the realm of general notions, although the term thinking now seems to include pretty much all mental activity except that of sensation and perception. Whenever we must overcome a difficulty which habit and instinct will not surmount, we must necessarily do some thinking. Percepts and images are both particular. We have percepts and images of particular birds — meadow-lark, wren, bluebird. But when we speak of the wren family, or of birds in general, we leave particulars and get into the field of the concept and of abstract ideas. The concept, bird, is purely mental. If we wish to illustrate such a notion, we must image a particular bird. Such illustration is necessary, often, in teaching and learning. A pupil certainly does not know the nature of adverbs, for example, unless he is able to pick them out on the printed page. Trees are concrete, real, and while it may be worth while to describe a typical tree, we should understand that no such tree exists anywhere in nature.

**Thinking and conclusions.** Thinking means judging, comparing, discriminating, noting likenesses and differences. In thinking we attribute certain effects to causes which are more or less discernible. If we really think we are careful to collect our facts, and enough of them, before we attempt to draw conclusions. The unthinking person often jumps at conclusions and thus sometimes gets himself and other people into trouble in that way. The thinking required in the application of knowledge is of the utmost value. Pupils need the power to acquire knowledge, to express knowledge, and to apply knowledge. Knowledge made practical and usable in the solving of problems is the only worth-while knowledge.

**Reasoning and problems.** In all successful problem solving, or thinking activity, the need for a definite objective is not always adequately understood. The problem should be definitely formulated and then restated so that the goal may be kept clearly in view. Facts bearing on the solution must be accumulated in abundance if the thinking is to produce trustworthy results. In suggesting ways of overcoming the difficulty or of solving the problem, both memory and imagination will necessarily be active in presenting a variety of images. Then, finally, it will be discovered that one method of solution seems to offer the best way out, and this line of thought is followed to the end and tested repeatedly for weak spots. By some such process both pupils in school and adults in the school of life are more or less successful in solving the problems of school and of life.

Reasoning is the highest type of thinking, and is either inductive or deductive. When the nature of a fraction or of an adverb is arrived at through the use of many concrete examples, the process is essentially inductive. When a pupil uses the definition of an adverb to select the adverbs on a page, the process is deductive. As a matter of fact, inductive and deductive reasoning go together and mutually reinforce each other. In every good class exercise inductive and deductive methods are freely intermingled by the skilled, experienced teacher, and without conscious effort.

## IX. THE SOCIAL AIM

**Socialized recitations.** The school grows out of the needs of society and it should minister to social efficiency. That is, the machinery and practice of the school should be so shaped that boys and girls will receive constant training in initiative, coöperation, and personal responsibility. School people in recent years have made much of the socialized

recitation; but we now know that while every recitation should have the social spirit, it is entirely possible to carry the extreme form of the socialized recitation altogether too far. The socialized recitation has an entirely sound central idea, and all good teachers have always socialized their class activities; but there are limitations, also. In class pupils should be trained to suggest questions of their own, to bring problems to the surface, to offer collateral material, to criticize misstatements, to correct poor language, and the like, but there will always remain a large place for the directive activity of a skillful teacher who has definite aims and a well-organized plan of procedure.

**Social activities.** There are many opportunities in every good school for a variety of coöperative enterprises which will develop the social powers of the child and make use of them for the benefit of the group. In some country schools the school paper, for example, has been a distinct socializing agency. Boys and girls develop power of initiative and a sense of personal responsibility in this way that is exceptional.

Every rural school, where it is at all possible, should have a thriving school society in which all pupils take as active a part as their abilities and the conditions will warrant. If the entire school presents a first-class program in which all have a share, the socializing influence will be evident. In carrying out a mothers' meeting or an evening meeting for the community, the teacher and her pupils will be engaged in a distinct social undertaking that will be of genuine social service to the community. The teacher with the social aim in mind will be satisfied with nothing less than a development of a social consciousness in her school. A good school is always a coöperative, democratic institution, where the social aim is a dominant one.

**X. "THE CONCRETENESS OF THE REAL"**

**Being concrete.** The good school deals in concrete realities where the actual worlds of nature and of human nature are concerned. It is not possible to do this if a teacher does nothing but assign and hear book lessons. The basis for all interpretation of the printed page is actual individual experience. The pupils must study real birds, weeds, streams, trees, flowers, squirrels, corn. In teaching agriculture, physiology, or geography there is repeated opportunity for objective teaching. It will not be hard for the children to learn to identify birds, weeds, or trees, if the teacher will actually bring her pupils into contact with such things.

One rural teacher was teaching weeds very industriously and conscientiously by the use of a well-known text. She was asked if the pupils had been given any instruction in actual identification of weeds by the use of specimens. The young teacher intimated that she had difficulty in finding suitable specimens. The supervisor reminded her that her own school yard would furnish plenty of ragweed, purslane, burdock, wild mustard, prickly lettuce, and one or two others. Teacher and pupils made good use of the next recess period to gather several weeds for the class study. Another rural teacher was teaching maps, but indifferently. The map was standing in the pupils' way, and, instead of affording a means of learning and expressing geographic knowledge, the map was a stumbling block and a source of irritation. So the supervisor took a hand in the work, and gave the pupils an exercise in the interpretation and reading of maps. Soon the members of the class were much interested and able to see in the map an indispensable means for the graphic representation of certain facts and relationships. Names and minute

details on maps often interfere with the teacher's purpose and efforts.

**Concrete problems.** In another school the pupils were having some trouble with land and water forms. A sand table stood in the corner of the room, but had been used largely for purposes of ornamentation. The visitor took the children to the sand table, and soon mountains, plateaus, isthmuses, peninsulas, gulfs, and bays began to appear, to the delight of the pupils. As a result of a fifteen-minute objective teaching exercise teacher and children decided upon a relief-map project of North America which would take the remaining three days of the week to carry out. In still another school some of the terms in the text of the constitution were giving trouble. At a meeting of the school society that afternoon the process of passing bills was worked out by actually taking the various steps, with the result that curiosity was aroused and interest stimulated to learn how our government operates. The best teachers are always concrete in their teaching, relating all that they do to the world of actualities.

*Just* **Excursions.** It is now quite common for teachers and pupils to go on excursions to the woods, the river, the creamery, the blacksmith shop, the cheese factory, or the town meeting at the town hall. Here are a few suggestions for the teacher's guidance when she decides to make use of excursions:

1. The teacher should make the trip herself before the class goes with her, so she will know all the conditions.
2. She should plan carefully for the excursion, setting down the things she wishes her pupils to see in the order in which they come.
3. Before starting on the excursion the main questions to be answered by the trip should be noted carefully. If the

visit is to a dairy these are some of the questions: How are the cows housed? What is their feed? How is the milk cooled? How is it bottled?

4. It will often be possible to secure the coöperation of parents. For example, many farmers will be glad to show both teacher and pupils about the selection of seed corn.

5. As the excursion proceeds there will be times when the teacher can halt the entire group to call attention to certain matters. Then this same point can be reviewed on the return to the school.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make a complete outline of this chapter, using this illustration as a suggestion:

##### *Review Lesson*

1. Need for review
2. Habituation and thinking
3. Reorganization in review
4. Purposes in review
5. Frequency of reviews
6. Review outlines

2. What is a recitation lesson? How does a recitation lesson differ from a study recitation? Name five sources of information for a recitation lesson in a rural school.

3. Why is it better to say: "You may find out why the Battle of Gettysburg was a turning point in the Civil War," than "You may take the Battle of Gettysburg for your lesson to-morrow"?

4. What do you consider the important facts to teach about the Battle of Gettysburg? The unimportant? Would you have the pupils sketch a map of the battle field? Why, or why not?

5. Give an instance where a teacher would be justified in taking a whole fifteen-minute period for an assignment lesson in arithmetic. In history. In geography. In reading.

6. Give five individual assignments which you might make while the class is studying South America.

7. State five suitable subjects for appreciation lessons in a rural school.
8. In conducting an appreciation lesson what should a teacher accomplish? Take Tennyson's "Bugle Song" for an example; or, Donizetti's "Sextette" (*Lucia*); or, Corot's "Spring."
9. Can you teach pupils to appreciate the patriotic song, "America"? How would you go about it? Make out a series of questions to teach the meaning of "America."
10. Make out a graph which shows John's progress in spelling from day to day. Make another for a class of six for one month.
11. When should you use the *telling* method and when not? Can you tell a child who has never seen one what a gopher is? Can you tell a child what a motion is in the literary society? Name five items of knowledge which can never be learned by any *telling* method. How, then, can they be learned?
12. Give three advantages and three disadvantages of the socialized recitation. Discuss the following as socializing agencies: a school paper; a school society; a survey of the school district; carrying out a successful box social in a rural school; the warm noonday lunch. Is each one of these a project? Why? Is project teaching a socialized form of teaching? Illustrate.

## CHAPTER XX

### MODERN MEASUREMENTS OF MENTALITY AND ACHIEVEMENT

**Inadequacy of the old measures.** Twenty years ago not many school people questioned the validity or usefulness of the common essay type of examination, with its usual accompaniment of a marking system based upon the personal judgment of the teacher. To-day, however, the more thoughtful, progressive teachers are largely discarding the old type of subjective test for the modern standard objective test, based upon scientific investigations and data.

The older forms of tests and examinations do not measure what they are supposed to measure — achievement and progress. It is difficult, often actually impossible, to discover individual deficiencies by means of the usual examination. Every teacher needs some reliable means by which she can ascertain the approximate status of each member of a class, in order to help him overcome specific weaknesses. The examination, or test, so long in use, was too general in character and not sufficiently diagnostic. It was the shotgun method, and it was only by accident that the target was ever hit. The questions were made out in hit-or-miss fashion and varied greatly in relative values.

After the pupils wrote their papers, the teachers marked them in accordance with their own personal, subjective standards. There were no objective norms, or criteria, and so the teacher judged according to her temperament, her mood, and her prejudices. It has been found by repeated investigations and experiments that teachers vary widely in

their marks — even as much as twenty-five to thirty per cent on the same paper. Starch, Elliott, and others have shown the inaccuracy and unfairness of the old marking system. If the same teacher marks the paper again after an interval of a few weeks or months, there will also very likely be a distinct inconsistency and discrepancy. In view of these facts, it is evident that a measuring system is needed which will actually measure.

**What can we measure?** In general terms it may be stated with fair accuracy that we can measure two things in the field of education: *intelligence*, or native capacity, and *achievement*, or progress in the work of the school. We should be able to measure personality traits as well as general intelligence and accomplishment, but hardly a beginning has been made in this direction, unless we accept the will-temperament tests, which are still in the experimental stage of development. The tests which have so far been devised are by no means perfect measures either of intelligence or accomplishment, but they are much superior to the ones formerly used, and they are being constantly improved. A child begins school, say, at six years of age with a mental equipment which is the combined result of his heredity plus his experience up to the date of enrollment. It is highly desirable that the teacher discover the child's capacities and abilities as soon as possible in order to adapt the instruction and training to his individual needs. In the past, and for the most part even now, rural teachers guess at the child's mental status and make use merely of a trial-and-error method of teaching. This is no longer necessary, for by use of modern tests, especially if repeated at intervals, the teacher may get a very trustworthy measure of the child's ability. As the work of the school goes on, the teacher can now use achievement tests, diagnostic tests, progress tests,

and inventory tests to ascertain the results of her teaching. She can test the child's knowledge, his memory, and his ability to think, to study, and to solve problems. She can discover his habits of work, his power of appreciation; in general she need not guess nearly so much as formerly.

**Norms: nature, need, source.** A chief weakness of the older measures of intelligence and achievement was the lack of generally recognized and accepted standards. In the modern measurements, which have become so popular the last dozen years, authoritative standards, or norms, are set up. These have been secured by giving tests to thousands of children to discover the average or normal tendency of different groups in various sections of the country. For example, if twenty-five thousand fourth-grade pupils are tested on a given list of words and the results carefully tabulated, an average result, mean, or norm, will be ascertained indicating the performance of an average pupil in this subject and grade. It is not difficult to see that the setting up of a scientific standard, derived by experiments and repeated testing over a wide area, and in many different schools, is far different from the use of a single teacher's personal, subjective standards. We now know quite definitely what an average fifth-grade pupil, for example, can do in spelling, in writing, in the fundamental rules, and in some other subjects. These facts are known because of long-continued and repeated tests in many schools taught by many teachers of varying ability. Modern tests are standard tests because they make use of authoritative, scientifically ascertained norms, or standards. By use of the Ayres Measuring Scale for Ability in Spelling, put out by the Russell Sage Foundation, a teacher is able to measure definitely the progress of individual pupils. These scales are norms, or standards of comparison.

*Norms - Standard of comparison*

**Varieties of tests and measures.** During the past ten years a variety of tests has been developed and used with more or less of success. These tests have been revised from time to time, as the result of experience. The entire testing movement is in the tentative, experimental stage. There are at the present time many achievement or accomplishment tests in the various subjects of the elementary school, as well as those of secondary schools. These achievement tests in reading, arithmetic, and other subjects are also called *subject* tests. They seek to discover the abilities of pupils in the usual school subjects.

If the main purpose is to discover special weaknesses, as for example in comprehension and rate of reading, then the tests are known as diagnostic tests. Such tests give the teacher exact knowledge of individual difficulties, which will make specific remedial work possible. A teacher may now locate a child's special difficulties in the different steps of long division, for example. The Courtis Standard Practice Tests in Arithmetic<sup>1</sup> have been in use for many years. These tests furnish not only standardized drills, but they also show the particular kind of drill which is needed to overcome individual deficiencies. Inventory tests enable a teacher to take stock, as it were, from time to time, in order to learn the exact mental status and progress of a child. The Wisconsin Inventory Tests in Arithmetic have been used extensively and successfully in that state as well as elsewhere. These tests assume that we should teach a child that which he does not know, but that we are not to teach a child that which he already knows.

The prognostic test determines in advance the fitness of the candidate or applicant to do certain special lines of work, and is used particularly by managers in the fields of industry

<sup>1</sup> World Book Company, Yonkers-on-Hudson, N. Y.

and commerce to prevent so many misfits in various occupations. These are sometimes called employment tests or vocational-guidance tests.

Intelligence tests, both individual and group tests, have been in use for many years. The army group-intelligence tests were used extensively and with great advantage at the various cantonments during the war. Recently self-administering tests of mental ability have been found a distinct advance in simplifying intelligence testing. Character tests, such as the Downey Will-Temperament Test,<sup>1</sup> both for individuals and for group testing, are a series of tests for determining the temperamental traits of an individual through a series of motor reactions. No mention has been made of scales, of which there is now a considerable variety for judging handwriting, spelling, reading, composition, and some other subjects.

**Marks of a scientific test.** E. A. Lincoln<sup>2</sup> and other writers have set up criteria for judging the fitness of a given test or measuring device. No modern standard test is perfect, but modifications are constantly being made, and the new measures of pupil abilities are becoming increasingly reliable and useful. It is now understood that a scientific test should possess the following attributes as nearly as may be possible.

*First.* The test should be a measure of the knowledge, habit, skill, or reaction that it is expected to discover or uncover.

*Second.* So far as may be, the test should be objective rather than subjective. Each question should usually have but one answer, and the teacher's personality should in

<sup>1</sup> World Book Company, Yonkers-on-Hudson, N. Y.

<sup>2</sup> LINCOLN, E. A.—*Beginnings in Educational Measurements*; J. B. Lippincott Company.

nowise determine the mark. This is easy in arithmetic and with all fact material, but difficult in those subjects and topics where several answers may be equally good and correct.

*Third.* The test must give the same results every time. If the test cannot be depended upon for fairly uniform measurement it is useless. It is then not a standard instrument.

*Fourth.* The divisions of the scale and the values of the different parts of the test must be equal. On a foot rule it is one inch from two to three, and exactly the same from nine to ten. So it must be with a reliable standard test.

*Fifth.* The children must be attracted by the test so that they will try to do their best. If they don't like it, the results will be unsatisfactory, whether because of the uninteresting character of the test itself or the unskillful way in which the teacher administers it.

*Sixth.* A good test is relatively short and easy to give. If the teacher herself is to give the test, as should often be true, it must not be complicated or take too much of the teacher's time. If long and difficult, teachers cannot be induced to do the work well; they will find excuses for not doing it at all.

*Seventh.* The best tests cover as many grades as possible, the more the better; for then a rural teacher, for example, can compare more pupils with one testing and thus have a wider gauge of her school.

*Eighth.* A standard test should provide reliable norms. This is now generally done; it enables the teacher to compare her pupils with the average child of this country of given age, grade, and subject. This is obviously very desirable.

*Ninth.* If a test is well constructed, it will discover not only the failures, but the specific causes for failure. The diagnosis of individual weaknesses, to pave the way for

definite remedial work, is highly important, and a scientific test does this very thing.

**Limitations of the new measures.** A teacher will make a mistake if she looks upon the standard test as a panacea for all the ills of the school. They are a most valuable means of ascertaining individual abilities and weaknesses, but they cannot take the place of individual instruction. Bagley and Keith<sup>1</sup> write as follows concerning the dangers which are found in an unintelligent use of intelligence quotients:

"The serious danger involved in the free use of the intelligence quotient in schools lies in its character as a single and apparently simple index of a person's mental ability. Its numerical form and its very name suggest an accuracy and precision which, fortunately or unfortunately, it does not as yet reflect. The hypothesis of a general intelligence or learning capacity is still only an hypothesis; it is not a fully established principle. Most psychologists *assume* that there is such a thing as general intelligence, and they assume furthermore that this factor is both inherited and very little influenced by educational or other environmental factors. But these inferences are still assumptions; their validity has not as yet been clearly established. It is thoroughly legitimate to use the I. Q. in a supplementary way to help the teacher in determining for practical purposes how far a pupil deviates from the norm *at the time he is measured*; but it is not legitimate to use this device in its present stage of development in such a way that hard and fast lines of cleavage will be drawn between pupil groups, and especially in a way that will condemn slow learners to restricted educational opportunities because of their supposedly meager inherited equipment."

<sup>1</sup> BAGLEY, W. C., AND KEITH, J. A. H.—*An Introduction to Teaching*; The Macmillan Company.

Teachers will do well to bear in mind that intelligence and achievement tests are, in the nature of the case, incapable of testing many elements of personality which are important from any point of view related to success in life. No test has so far been devised which will satisfactorily ascertain such qualities of character as persistence, kindness, sympathy, determination, industry, self-reliance, poise, or resourcefulness. Achievement tests are for the most part tests of memory rather than power to think. The intelligent teacher does not rely wholly on intelligence or other tests in her efforts to instruct and train children.

**Why and how use intelligence and other tests.** Terman summarizes the advantages of scientific testing of intelligence as follows:<sup>1</sup>

1. It gives a universal standard of comparison. The result is absolutely uninfluenced by the general intellectual level of the group with which the subject to be rated happens to be associated.
2. It multiplies enormously the significance of mental performances. It does this by making fine distinctions which would be overlooked by the method of offhand judgment.
3. It is objective; that is, it is free from the influence of personal bias. It gives approximately the same verdict to-day, next week, or next year.
4. The test result is little influenced by the subject's educational advantages. In this it differs greatly from offhand judgment, which so easily mistakes the results of schooling for real intelligence.

W. C. Ferguson,<sup>2</sup> points out the advantages of achievement tests as follows:

<sup>1</sup> TERMAN, L. M. — *The Intelligence of School Children*; Houghton Mifflin Company.

<sup>2</sup> *A Brief Treatise on Standard Tests and Measurements*; World Book Company, Yonkers-on-Hudson, New York.

1. They supply definite standards of attainment in the various school subjects.
2. They give objective results of school work.
3. They may be used as incentives to improvement.
4. They measure the progress of pupils.
5. They offer a basis for classification.
6. They furnish a basis for promotion and the grading of school work.
7. They are valuable in pointing out individuals who need special attention.

**Individual differences and intelligence.** "Individual differences exist, education cannot eliminate them, they are innate, due to original nature. Education that does not recognize them and plan for them is wasteful and, what is worse, criminal." This is the opinion not only of Strayer and Norsworthy,<sup>1</sup> but of all who give careful consideration to the subject. Children differ in a multitude of ways; it is coming to be realized that, although differences are due both to heredity and training, the original native endowment or capacity has the largest influence. Education or training only accentuates differences already existing; the dullness of a dull child or the brightness of a superior child becomes increasingly manifest as the training process goes forward.

Both children and adults differ in race, age, size, type of nervous system, quickness or slowness of response, temperament, types of memory, power and character of imagery, acuteness of the senses, habits, ideals, capacity for interest and attention, dependability, studiousness, cheerfulness, courage, sense of humor, temper, self-control, and social nature. They differ in what we designate as general intelligence, the general mental capacity to get on in life or to make

<sup>1</sup> STRAYER, G. D., AND NORSWORTHY, N. — *How to Teach*; The Macmillan Company.

one's way in the world successfully in competition with one's fellowmen. "Behavior," says H. Woodrow, "is the sum total of life's activities; and it is by these activities that intelligence must be judged." Varying response to different situations is due in large measure to differences in natural capacity or intelligence.

Betts<sup>1</sup> gives Terman's classification of individual differences, based on intelligence quotients:

<i>Intelligence Quotient</i>	<i>Classification</i>
Above 140 . . . . .	Near genius or genius
120–140 . . . . .	Very superior intelligence
110–120 . . . . .	Superior intelligence
90–110 . . . . .	Normal, or average intelligence
80–90 . . . . .	Dullness, rarely classified as feeble-mindedness
70–80 . . . . .	Border-line deficiency, sometimes classifiable as dullness, often as feeble-mindedness
Below 70 . . . . .	Definite feeble-mindedness

It has been found by making a large number of intelligence tests that about 60% of all children have an intelligence quotient falling between 90 and 110. Twenty per cent are below 90, and 20 per cent above 110. This table shows a more detailed distribution of the I. Q.'s of a considerable number of school children:

I. Q. below 70 . . . . .	1 per cent
I. Q. 70–79 . . . . .	5 per cent
I. Q. 80–89 . . . . .	14 per cent
I. Q. 90–99 . . . . .	30 per cent
I. Q. 100–109 . . . . .	30 per cent
I. Q. 110–119 . . . . .	14 per cent
I. Q. 120–129 . . . . .	5 per cent
I. Q. over 129 . . . . .	1 per cent

<sup>1</sup> BETTS, G. H. — *The Mind and Its Education*; D. Appleton and Company.

**What determines intelligence?** Intelligence is not an easy term to define; perhaps it is incapable of brief, accurate definition. Psychologists are not wholly agreed as to the exact nature of intelligence; but Binet, a French psychologist and the famous originator of distinctive tests of general intelligence, placed *sound judgment* as the central element of intelligence. Intelligence is the ingrained capacity to take advantage of opportunities, to adjust oneself to new situations or requirements by thinking. A person of intelligence uses persistent effort in steadfastly pursuing a fixed purpose leading on to successful accomplishment. It should be carefully noted that intelligence is *capacity* to respond, to learn, to know, to succeed, and not the body of knowledge acquired as the result of experience. Intelligence is *native capacity* to acquire and not the acquisitions themselves. From the teacher's point of view intelligence is largely a matter of *ability* to learn and to remember. Betts analyzes intelligence into four factors: (1) capacity to receive and respond to impressions; (2) ability to conserve and make use of past experiences; (3) power to give continued attention and sustained effort; and (4) capacity to be interested in and curious about factors of the environment. By the use of the Stanford-Binet or other suitable tests it is easy to show, by taking persons in different walks of life, of varying intelligence, with and without schooling, that intelligence is a general capacity to respond and judge, rather than merely the possession of knowledge or information.

### The seven ages.

“ All the world’s a stage  
And all the men and women merely players;  
They have their exits and their entrances;  
And one man in his time plays many parts,  
His acts being *seven ages*,” etc.

Then Shakespeare gives us a picture of the seven ages, starting with the infant and ending with that age when man is "sans teeth, sans eyes, sans taste, sans everything." To-day seven ages of a different character are differentiated. They are the chronological age, anatomical or physiological age, mental age, subject age, educational age, pedagogic age, and achievement or accomplishment age.

The *chronological* age represents the number of years one has been on this earth since birth. The *anatomical* age represents the advancement in the growth and development of the various parts of the body, and is closely related to *physiological* age, which has to do with development of functions rather than structures.<sup>1</sup> It is a matter of common observation that children do not develop physically at the same rate. The *mental* age indicates the child's native ability or intelligence. A ten-year-old boy who can pass the standard twelve-year tests is twelve years old mentally. The *subject* age is the pupil's achievement age for a particular subject. A boy's spelling age may be twelve and his arithmetic age only ten, for example. Subject ages are ascertained by comparison with standards resulting from the testing of thousands of children. The *educational* age is the composite of all the child's school-subject ages. The educational age is found by making use of what is termed a battery of tests. *Pedagogical* age is nothing more or less than a child's school grade. Assuming that the normal, average age for grade four is nine, a child in this grade who is twelve years of age may have a mental age of only eight or nine. He should be, by chronological age, in the seventh grade

<sup>1</sup> Some of the terms and distinctions in this section were suggested to the author by HERBERT WOODROW in his suggestive text, *Brightness and Dullness in Children*; J. B. Lippincott Company.

instead of the fourth. The *achievement* or *accomplishment* age is only another name for subject age, and may be special for given subjects, like spelling or reading, or it may represent a composite result, the educational age. If the achievement age is divided by the mental age a very useful result is obtained, the *accomplishment quotient* or the A. Q. As this quotient is derived by considering both intelligence and achievement, it is a good measure of pupil efficiency. It shows both native capacity and special ability.

**Mental age and the I. Q.** Tests have been perfected which are a fairly reliable measure of what is called general intelligence, or general power to learn. These tests have been given to tens of thousands of children of all ages, and through this wide use of them it has been possible to set up standards. It is now known, for example, about what average score a nine-year-old child or a twelve-year-old child will make when the Stanford-Binet scale is used. After standards are determined by this process of careful experiment or investigation, then any given twelve-year-old pupil can readily be tested and his mental age determined. If he secures the exact twelve-year average score he is said to be normal. If he makes the score of the average fifteen-year-old, his mental age is fifteen though he is chronologically only twelve. If, on the other hand, this twelve-year-old is able to pass only the tests for the average ten-year-old he is then two years under age mentally. His mental age is ten years. "Each mental age stands for the degree of intelligence possessed by the normal child of the corresponding chronological age. To say that a child has a given mental age means simply that he behaves in the manner of the average, or normal, child of that age — that he is capable of doing the same things."<sup>1</sup>

<sup>1</sup> WOODROW, HERBERT — *op. cit.*

I. Q. means intelligence quotient ; it is secured by dividing the mental age by the chronological age. The I. Q. is a very convenient expression for a child's mentality. If a pupil is ten years old chronologically, but only eight years old mentally, his I. Q. is said to be 80. The decimal point is not used. If another ten-year-old has a mental age of ten, his I. Q. is 100. If a third child ten years of age has a mental age of twelve, his I. Q. is 120. This first child is dull, the second medium or average, and the third bright or superior. The three situations are shown thus :

$$\text{I} - \text{I. Q.} = \frac{\text{M. A.}}{\text{C. A.}} = \frac{8}{10} = 80$$

$$\text{II} - \text{I. Q.} = \frac{\text{M. A.}}{\text{C. A.}} = \frac{10}{10} = 100$$

$$\text{III} - \text{I. Q.} = \frac{\text{M. A.}}{\text{C. A.}} = \frac{12}{10} = 120$$

**Nature of intelligence tests.** The scales, or tests, commonly used, contain a great variety of tests. Memory, for example, is tested by the repetition of sentences ranging from three to twenty-six syllables in length, and by the repetition of digit series ranging from two to seven digits each. There are several tests of time orientation, including distinction between forenoon and afternoon, naming the days of the week and the months of the year, and giving the date. Eye-hand coöordination is tested by drawing geometrical figures from copy ; wealth of ideas, by naming as many words as possible in a given time ; perception, by defining words and by the description and interpretation of pictures ; logical association, by the detection of nonsense in such statements as "I have three brothers — Paul, Ernest, and myself " ; resourcefulness, by questions asking what one ought to do under given circumstances, as, for example, if one's house is afire, if one is going some place and misses the train, etc. There are also tests of language comprehension, of knowledge about

common objects, or ability to comprehend and use abstract ideas, and of other intellectual powers.<sup>1</sup>

**Stanford-Binet, or Stanford Revision, Scale.** It is now a quarter century ago that Prof. Alfred Binet and Dr. Simon of Paris devised the first intelligence tests as one means of solving the problem of retardation. These tests have been widely used both in Europe and America. In the Binet-Simon scale there were fifty-four tests, ranging from the third year up to the adults. In the United States the old Binet-Simon Scale has been much improved by Dr. L. M. Terman of Leland Stanford Jr. University, and by other psychologists, and the number of tests has been increased from fifty-four to ninety. The new scale perfected by Terman is known as the *Stanford-Binet Scale* or the *Stanford Revision*, and is the net result of testing over two thousand children and carefully tabulating the results. Lack of space prevents giving samples of the tests, but teachers can easily secure them by writing to the Houghton Mifflin Company, Chicago or New York.

**Individual and group tests.** Standardized tests are more than examinations; they are reliable measures of ability. Their standardization is based upon the results obtained from the examination of large numbers of individuals. A pupil's score on the tests gives a quantitative value to his ability as compared with other pupils or with the average individual of his age and school grade. The knowledge and experience of an expert are required in the preparation of a standardized test, and extended experimental use of the test is necessary before it can be established as a valid measure of ability.

The tests that are receiving so much attention at this time are the group tests, as contrasted with individual tests. Individual

<sup>1</sup> TERMAN, L. M. — Article on "Intelligence" in *The World Book*; W. F. Quarrie and Company, Chicago.

tests must be administered to one person at a time, while group tests may be given to groups of any convenient size. Each of these two types of tests has its advantages, and one does not take the place of the other. But because many persons may be quickly examined with group tests, their use is the more general. For the wholesale examination of school children, educators must depend upon group tests.<sup>1</sup>

**Stupidity and brilliancy.** Woodrow begins his very suggestive and useful book *Brightness and Dullness in Children* by giving a letter written by Francis Galton to his sister the day preceding his fifth birthday. Here it is:

My dear Adele :

I am 4 years old and I can read any English book. I can say all the Latin Substantives and Adjectives and active verbs besides 52 lines of Latin poetry. I can cast up any sum in addition and can multiply by 2, 3, 4, 5, 6, 7, 8, (9), 10, (11).

I can also say the pence table. I read French a little and I know the clock.

Francis Galton February 15, 1827.

Although Francis misspelled February, he was a prodigy. He was a very bright, or superior, child, whose I. Q. would undoubtedly be around 175. In his book, *The Intelligence of School Children*, Doctor Terman gives the records or personal histories of dozens of children — dull, medium, and bright. Chapter XI deals with Case Studies of Forty-One Superior Children.

In nearly every school and practically in every class there are bright, medium, and dull pupils. Terman uses the terms *superior* and *inferior*. Both bright and dull pupils are retarded in the grades, but the superior child, notwithstanding common belief to the contrary, is retarded the most.

<sup>1</sup> FERGUSON, W. C. — *A Brief Treatise on Standard Tests and Measurements*; World Book Company, Yonkers-on-Hudson, N. Y.

Many a pupil with a superior mind, a high I. Q., is made to mark time because of the rigidity of the graded system, and because his teacher does not possess the knowledge and the moral courage needed to place such a child where he belongs.

By the use of intelligence tests, repeated as often as necessary, and by the use of the various achievement or diagnostic tests, a teacher should ascertain early in the year the mental standing of each of her pupils. Dull pupils require much drill and, in general, entirely different treatment from those of superior mentality. This is no longer a field for guessing. It is a case for clear, definite diagnosis. The dull child is not to blame for his stupidity, and should never be scolded or ridiculed. The superior child should have a chance to progress as rapidly as his superior abilities and his health will permit. In most schools the bright pupil is not given a fair chance at all. He is held back; often his teacher is not clearly conscious of the bright child's ability. Both the stupid and the brilliant child should have an opportunity to do their best; this can come about only under a teacher who has studied the problem of individual differences and of standardized testing.

**Diagnosis of individual deficiencies.** In the Biennial Report of the State Department of Public Instruction of Wisconsin for 1922-1924, Dr. W. J. Osburn, Director of Educational Tests and Measurements, has this to say relative to the increasing use and the function of tests:

"Another change in the character of the testing movement is shown in the new functions which the tests are made to serve. Formerly they were for general survey purposes only. Now the interest lies in finding what each pupil needs and how to supply that need. This means that tests are being used for *diagnostic purposes* more than ever before. Whenever the teacher is made to feel that testing offers her

a means of reaching and helping most if not all of the supposedly hopeless ones in her class, and in saving time and effort through more economical means of getting at what the child knows, what he needs to know, and why he has not learned it, she no longer questions the use of tests. The ever increasing number of inquiries from classroom teachers bears ample evidence to the truth of this statement."

The *Courtis Standard Research Tests in Arithmetic*<sup>1</sup> seek to discover both a child's speed and his accuracy in the fundamentals. The time is limited, and after the papers are scored, the teacher has a good measure of the ability of each member of the class. The Woody tests or scales in arithmetic are so arranged that very easy examples in addition, subtraction, multiplication, or division are given at the start, with the difficulties increasing in each successive example. No child can work them all in the given time limit. By the use of these tests a pupil's particular difficulties will be disclosed, making possible the necessary remedial work.

Different types of diagnostic tests are used in reading. In the Thorndike Visual Vocabulary Scale for grades three to ten the pupil is required to read and to follow directions in classifying lists of words which are arranged in miscellaneous groups. In another type of reading test pupils are given paragraphs to read and questions upon these paragraphs to answer, as a test of comprehension or understanding of sentences. Diagnostic tests to discover individual deficiencies are now available in most of the elementary school subjects.

**Achievement tests and accomplishment quotient.** Diagnostic tests, inventory tests, supervisory tests, prognosis tests, research tests, practice tests, subject tests and scales are all measures of a pupil's achievement or progress in school

<sup>1</sup> These tests by DR. S. A. COURTIS are published by World Book Company and also by the author, 246 Eliot Street, Detroit, Michigan.

work. The most useful measure of a teacher's instructional success is the *progress* of her pupils collectively and individually during a given period of time, as a month, a term, or a year. Such a measure is a true diagnostic instrument, because it shows up particular difficulties and makes clear what needs to be done both with dull and bright pupils.

Achievement tests now available are furnished with age-norms, or average scores, for different ages and grades. These have been derived by giving the tests to many thousands of children. Examples of such standardized tests and scales are now found in abundance, as in the Burgess Scale for Measuring Ability in Silent Reading or the Ayres Spelling Scale.

A child with a high I. Q. should usually make better progress in school work than one whose I. Q. is much lower. But this is not always the case; it happens not infrequently that a child of only moderate intelligence surpasses the brighter schoolmate, and for various reasons. Two important determining factors are health and industry. Great brain capacity does not get us far in learning if there is lack of nervous energy or if there is a disposition to take life too easy.

The accomplishment quotient for any given subject is found by dividing the subject age by the mental age. For example, a pupil with a mental age of ten years and a subject age of twelve years in reading, has an accomplishment quotient in reading of 120. A pupil twelve years of age mentally may have a spelling age of only nine years. Then his accomplishment quotient in spelling is only 75. A child's general accomplishment quotient may be found by dividing his total educational age, the composite for all school subjects, by his mental age. If a child is doing normal work his general achievement quotient should be about 100. If this A. Q. is much below 100, the teacher should know the reasons back of

the situation. Several writers think that the A. Q. is the most useful of all measures yet devised and that teachers should realize the true meaning of it.

**Medians: meaning and determination.** In this chapter it is impossible, because of limited space, to give more than the most elementary and basic facts pertaining to measurement. Any attempt to go deeply into the mathematical phase of the subject is out of the question. However, the notion of the *median* and how it is calculated is not difficult and will be considered very briefly.

The median score of a number of scores is simply that score which has the same number of scores above and below it. The results are arranged first in order from the lowest to the highest, and the median is the middle one of the lot. In the following series of per cent marks, arranged in order of size, 80 is the median mark: 60 — 64 — 70 — 73 — 78 — 80 — 81 — 87 — 88 — 90 — 92. It should be clearly noted that the median is not the arithmetical mean. The mean of this set of marks is  $78\frac{5}{11}$ . Note that five pupils did better than 80 and five did not do as well as 80. A simple illustration will make plain the method of finding the median point. Let us suppose that a class of twenty-five pupils are given the Stone Reasoning Test No. I, in which there are 12 problems. The class is allowed fifteen minutes. When the time is up the papers are collected, and scored with the following results:

<i>Number of Problems</i>	4 — 5 — 6 — 7 — 8 — 9 — 10	<i>Total</i>	49
<i>Number of Pupils</i>	2 — 1 — 6 — 8 — 5 — 2 — 1	<i>Total</i>	25

These figures mean that two pupils solved four problems correctly, one solved five correctly, six solved six correctly, and so on through the entire class. The median point is discovered by dividing 25 by 2, which is  $12\frac{1}{2}$ , and then counting to find  $12\frac{1}{2}$  cases in the list, beginning with the two pupils

who solved four problems correctly. Counting, we have 2 plus 1 plus 6 plus  $3\frac{1}{2}$  pupils who worked seven problems correctly. The *median point* then becomes  $\frac{3\frac{1}{2}}{8}$  of one more than seven problems worked correctly.  $\frac{3\frac{1}{2}}{8} = .4+$ . Therefore, the median accomplishment of the class is  $7.4+$ .

A graph showing the facts of the situation is presented below. It will be noted that the results approximate the

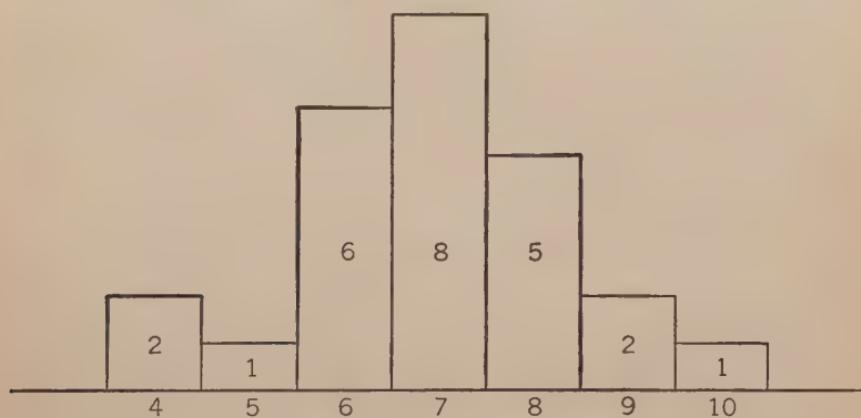


Fig. 5.—Graph of class scores

normal distribution often found in such cases. In small groups and in selected groups we never get more than an approximation of the normal distribution, often a long way from a close approximation. It is very important to bear this in mind.

Formerly teachers were content to secure the arithmetical mean of the marks of the class. In a series of per cent standings such an arithmetical mean may disclose the central tendency of the group, but it is more likely not to do so. If the teacher desires to find a type result for purposes of comparison, the median is much more useful than the mean for

this purpose. In the above illustration we know, for example, that half of the pupils did better than 7.4 problems and half did less than that figure. In this class of 25 pupils, a total of 173 problems was solved, an average of slightly less than seven problems each. It is seen that this average does not tell the exact story which the teacher needs; in many cases there is a much greater discrepancy between the median and the mean.

This discussion has not fully discriminated the median point, the median step, and the median measure or score. The median score in the above illustration is 7, and the median point, 7.4, is found in the median score. For further elucidation, the reader is referred to the various texts now published on this subject.

**Giving tests: need for care.** No teacher should attempt to give any intelligence or achievement test until she has read the directions carefully. If these directions are not followed closely, the integrity of the results will certainly be lessened. Teachers are sometimes so anxious for their pupils to do well that they unconsciously help them in various ways. For example, sometimes the time limits are not adhered to in the case of all pupils. Such a practice vitiates the results, and the test can no longer be considered a standard test. Many teachers have learned how to give the various tests simply by reading a description of them, together with the rules for administering the tests. This means that these teachers could read and comprehend the English sentence. If a teacher is a poor silent reader herself, she should secure the assistance of someone who has learned the testing process. The best way to learn how to give a test is actually to take the test oneself under a competent director. Standard testing is not difficult, but it does require ordinary intelligence and care.

To illustrate the kind of directions used in giving tests the following is taken from the *Thorndike-McCall Reading Scale — For the Understanding of Sentences — Form 2*:

This is to be a reading contest. You will read paragraphs like this one, and answer questions like those you see below. Answer every question you can. If you come to a question you can't answer skip it and go on. Go back to it later. If you finish before you are told to stop, go back and make sure that you have made no mistakes. When possible the answer to the question must be found in the paragraph. You may read the paragraphs as many times as you need to. You will have enough time but don't waste it. Play fair. Don't look at anyone else's paper. You will be told your score later.

- I. Does it say you are to do your best?
- II. Does it say you may read the paragraph as often as you need to?
- III. Are you to look at anyone else's paper?
- IV. When possible, where must you find the answers?

As soon as you finish one page do the next. You are to start with the first page. Open papers! Begin!

*To the examiner:* Distribute test booklets. Have blanks filled. Read the above paragraph aloud while pupils read silently. Read the first question aloud. Have it answered orally and then in writing by pupils. Treat the other three questions similarly. Start pupils. Stop pupils thirty minutes after saying *Begin!* Give no further help.<sup>1</sup>

**Scoring and tabulating results.** Tests are scored in a variety of ways, and full directions accompany the test in each case. Teachers should bear in mind that scoring standard tests is a different proposition from that of marking examination papers. In using the old marking system much was left to the teacher's personal judgment and feelings;

<sup>1</sup> Printed here by courteous permission of Teachers College, Columbia University, the publishers.

but in scoring modern test papers the personal, or subjective, element is largely eliminated. Keys are furnished with the tests, giving all possible correct answers, if in any case there is more than one; and these keys are used in scoring, thus making the results very exact.

The general rules for scoring Delta 2 of the Haggerty *Intelligence Examination* are printed here to illustrate the need of being careful and exact.<sup>1</sup>

*Directions for Scoring Delta 2. General Rules*

1. Each item of each exercise is scored either right or wrong. No part credits are given.

2. In general, items evidently corrected by the pupil stand as corrected.

3. Before beginning the scoring of each exercise, indicate the last item of the test attempted by drawing a long line under that item and out into the margin of the page.

4. In tests where the score is "number right," wrong and omitted items are checked thus,  $\checkmark$ , and the number of checks subtracted from the total number of items down to the line indicated under 3 above gives the score.

5. In tests 1 and 4, where the score is "right minus wrong," wrong and omitted items must be separately checked. Wrong items are checked thus,  $\checkmark$ ; omitted items are checked thus, 0.

6. Enter the score for each test in the lower right-hand corner of the test page and encircle it. When the test has been rescored, a check mark may be made beside the circle.

7. Use blue pencil, because it increases accuracy of scoring.

8. The Key for Delta 2 may be used for scoring all exercises.

After the papers are scored the results are tabulated. The form of the tabulation is determined by the purpose of the test. In general, the facts should be presented so clearly

<sup>1</sup> From Haggerty *Intelligence Examination*, copyright 1920 by World Book Company, Yonkers-on-Hudson, N. Y.

that it will be relatively easy to make comparisons, showing the departures from the normal standards by individuals and also by groups of pupils.

The following tabulation is taken from the Thorndike-McCall bulletin<sup>1</sup> of directions.

TABLE IV. SAMPLE SCORE SHEET

SCHOOL NO. 11. GRADE 4B. TEACHER MISS X. DATE JUNE 15, 1920.

I CHRON. AGE IN MONTHS	II PUPILS' NAMES	III T SCORE	IV READING AGE	V READING QUOTIENT
124	Adams, Sam	27	84	68
120	Baker, Mary	52	155	129
248	Davis, Geo.	40	121	82
134	Evans, Asa	46	138	103
Mean . . . . .		41.3	Mean . . . . .	95.5
Grade Norm . . . . .		41.8	Norm . . . . .	100

Note that means are secured by taking the average of the T scores and the reading quotients. The word *mean* is used instead of average.

**Interpretation of varying scores.** X-ray pictures are now used frequently in the diagnosis of any up-to-date physician, surgeon, or dentist. It is not so difficult to get the pictures, for the apparatus has been perfected and expert operators who often do nothing else are able to secure very uniform and clear plates. However, after the plates are made it again requires a skilled person scientifically and safely to interpret the results. One physician may interpret the pictures of a person's teeth to mean that they should be extracted. But a more skillful dentist may decide that the clouded portions do not indicate abscesses; or if they do, that these teeth can be successfully treated, and the loss of the teeth avoided.

<sup>1</sup> By permission of Teachers College, Columbia University.

So it is with the results of these tests of both individuals and of classes. All sorts of interpretations are possible; many times someone more skilled than the teacher herself is needed to take the readings, make the diagnosis, and suggest the remedy. It may be clear that the grade of mentality of a given pupil is so low that he can never, by any possibility, complete the eight grades. In the case of another boy, his I. Q. is 120, but his A. Q. is only 85. This may mean poor health, plain laziness, vicious habits, or something else. In any event the interpretation will determine the diagnosis and the remedy.

While experts may be needed for the interpretations of a generalized survey, it remains true that the teacher herself can often shed light on the meaning of very high or very low scores because of her intimate acquaintance with the children. It cannot be stated too often that the chief value of tests lies in their diagnostic uses for remedial purposes. Successful diagnosis reads into a score, or a series of scores, the complete history of the child — physical, mental, and moral, — so far as it is possible to get the facts.

**When to repeat tests.** Tests should be repeated as often as the needs of the pupils and of the teacher require. The teacher should aim to get and to keep a given child up to as high a level of attainment or accomplishment as his native capacities will warrant and permit. In order that a pupil may move on at his normal rate of progress, the teacher must test him repeatedly to discover how much he is gaining. In reading, for example, there are now available definite figures both for comprehension and speed for the different grades. No two children will have the same rate, and the pupil who is low either in speed or comprehension, or both, will, of course, need much practice and frequent testing to find out what kind of drill and how much drill to use. Some tests

will need to be repeated weekly, some once a month or once a term, though the time factor should not decide the matter but rather the child's mastery of the subject matter and the skill which he attains. When certain combinations have been taught and drilled upon, the teacher will need to test to ascertain the results of the teaching and drill. When, say, ten words have been taught during the week, then on Friday a test will be in order, to see how much the mental residuum may be. And at the end of four weeks a general review test on the month's work may be found advisable. Such tests need not be of the printed commercial type, however.

Intelligence tests may not be needed more than once or twice during the year; but achievement tests should be given frequently if the teacher is to avoid guessing and to keep herself and her pupils up to standard effort and progress. The Courtis practice tests are now in daily use in many of the best schools throughout the country. Inventory tests are needed whenever a teacher wishes to ascertain the mental status of her pupils and the results of her teaching. The author believes that teachers will make increasing use of all kinds of standard tests as their value comes to be better understood.

**Samples of achievement tests.** The following examples in arithmetic and reading will give the reader some idea of the nature of such tests:

*Arithmetic tests.* In the subjoined Woody Subtraction Scale<sup>1</sup> the examples are arranged in order of difficulty. No pupil is expected to do all of them. The scale is a measure of a pupil's ability in subtraction, and will give the teacher a means of diagnosing individual difficulties. A given pupil may be able to work No. 20 and not No. 22, or he may be

<sup>1</sup> By permission of Teachers College, Columbia University.

able to do No. 28 but not No. 25, and so on. Results will indicate a child's knowledge and school experience, and there will be ample opportunity for careful interpretation.

SERIES A  
SUBTRACTION SCALE

CLIFFORD WOODY

City.....County.....School.....Date.....  
 Name.....When is your next birthday?.....  
 How old will you be?.....Are you a boy or a girl?.....  
 In what grade are you?.....Teacher's name.....

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
8	6	2	9	4	11	13	59	78	$7 - 4 =$	76
<u>5</u>	<u>0</u>	<u>1</u>	<u>3</u>	<u>4</u>	<u>7</u>	<u>8</u>	<u>12</u>	<u>37</u>		<u>60</u>

(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
27	16	50	21	270	393	1000	567482	$2\frac{3}{4} - 1 =$
<u>3</u>	<u>9</u>	<u>25</u>	<u>9</u>	<u>190</u>	<u>178</u>	<u>537</u>	<u>106493</u>	

(21)	(22)	(23)	(24)	(25)	(26)
10.00	$3\frac{1}{2} - \frac{1}{2} =$	80836465	$8\frac{7}{8}$	27	4 yds. 1 ft. 6 in.
<u>3.49</u>		<u>49178036</u>	<u>5\frac{3}{4}</u>	<u>12\frac{5}{8}</u>	<u>2 yds. 2 ft. 3 in.</u>

(27)	(28)	(29)	(30)
5 yds. 1 ft. 4 in.	$10 - 6.25 =$	$75\frac{3}{4}$	$9.8063 - 0.019 =$
<u>2 yds. 2 ft. 8 in.</u>		<u>52\frac{3}{4}</u>	

(31)	(32)	(33)	(34)
$7.3 - 3.00081 =$	1912 6 mo. 8 da.	$\frac{5}{12} - \frac{2}{10} =$	$6\frac{1}{8}$
	<u>1910 7 mo. 15 da.</u>		<u><math>2\frac{7}{8}</math></u>

(35)  
 $3\frac{7}{8} - 1\frac{5}{8} =$

*Reading tests.* The following samples will illustrate one type of test. Several other kinds are now in use. Instructions, to be read by teacher and pupils together, are given under the heading "Directions for Giving the Test."<sup>1</sup> It is not possible to print these instructions here.

Test II	Published under the auspices of the	Rate score..
Form 1	UNIVERSITY OF ILLINOIS Bureau of Educational Research	Comprehen- sion score..

BY

THE PUBLIC SCHOOL PUBLISHING COMPANY  
BLOOMINGTON, ILL.

Standardized Silent Reading Test

Devised by WALTER S. MONROE

For

Grades 6, 7, and 8

Name.....	Age to-day.....	Yrs. ....	Months .....
Race.....	Sex.....	Grade.....	
City.....	State.....	Date.....	
School.....	Teacher.....		

#### Directions for Giving the Test

##### No. 10

Rate value 17 (98)	<i>It was cold, bleak, biting weather; foggy withal; and he could hear the people in the court outside go wheezing up and down, beat- ing their hands upon their breasts and stamp- ing their feet upon the pavement stones to warm them.</i>	Compre- hension value 4
--------------------------	---	----------------------------------

<sup>1</sup> By permission of the publishers, The Public School Publishing Company, Bloomington, Ill.

The author has attempted to give you a picture in this paragraph. After reading the paragraph, if you think it is a picture of comfort and pleasantness, draw a line under the word *hear*; if of cheerlessness and dreariness, draw a line under *bleak*.

hear                  wind                  bleak                  cold

### No. 12

Rate value 11 (119)	<i>Aladdin's uncle said: "I will take a shop and furnish it for you." Aladdin was delighted with the idea, for he thought there was very little work in keeping a shop. He liked that better than anything else.</i>	Compre- hension value 4
------------------------------	--	----------------------------------

Draw a line under the word below that tells us what kind of a boy Aladdin was.

industrious      ambitious      active      lazy      honest

### THORNDIKE-MCCALL READING SCALE<sup>1</sup>

#### FOR THE UNDERSTANDING OF SENTENCES

##### Form 2

Write your name here.....

School..... Grade..... Date.....

How old are you?..... When is your birthday?.....

Read this and then write the answers. Read it again if you need to.

*Nell's mother went to the store on Water Street to buy ten pounds of sugar, a dozen eggs and a bag of salt. She paid a dollar in all. Nell and Joe went with her. On the way home on Pine Street, they saw a fire-engine with three horses.*

1. Was the salt in a box or a bag or a can or a dish?.....

<sup>1</sup> By permission of Teachers College, New York City.

2. How many eggs did she buy?.....
3. What did the children see on Pine Street?.....
- .....
4. What street was the store on?.....

Read this and then write the answers. Read it again if you need to.

*On Monday Dick saw a red fox, a gray squirrel, and a black snake in the woods. The next day he saw a brown rabbit and five brown mice in the field. He killed the fox and all the mice, but let the others live.*

5. What did Dick do to the fox?.....
6. What color was the rabbit?.....
7. Where did Dick see the fox?.....

There are ten forms of the Thorndike-McCall Reading Scale, one for each month of the school year. How to use this or any other series of duplicate tests to improve instruction or supervision is described in detail in *How to Measure in Education*, by William A. McCall (The Macmillan Company, New York, 1921).

**New testing procedures.** Beside the various measures of achievement and progress which have been mentioned, there is also at the present time a different type of examination or test question which seems to be meeting with much favor among many progressive teachers and superintendents. There are several varieties or forms of these new tests, including the *true-false*, the *yes-no*, the *multiple choice*, the *completion*, the *matching of words or terms*, etc. These tests have already been used extensively in various school subjects, and while they are too often likely to be simply tests of knowledge chiefly in the form of verbal memory, they have a distinct advantage over the old examination usages in that they are much more *objective* and hence exact in character. These samples, taken at random, are offered merely as suggestive illustrations.

*(a) True-False Tests*

Cross out the *T* if the statement is *false*, the *F* if it is *true*:

1. Pershing was an American general in the World War. (T-F)
2. The United States imports large quantities of rubber from Holland. (T-F)
3. The ventricles have much thicker walls than the auricles. (T-F)
4. Benjamin Franklin placed our government on a sound financial basis. (T-F)
5. Cotton is grown extensively in the New England states. (T-F)
6. The blood is composed of more white corpuscles than red ones. (T-F)

*(b) Matching Test*

Place the name of the man opposite the phrase which tells what he was or what he did:

1. William Penn	1. Orator during Revolution
2. Cornwallis	2. Writer of Declaration of Independence
3. Washington	3. British general during Revolution
4. Patrick Henry	4. First Secretary of Treasury
5. Jefferson	5. Invented cotton gin
6. Daniel Boone	6. Settled Pennsylvania
7. Alexander Hamilton	7. Explored Louisiana Territory
8. Benjamin Franklin	8. One signer of Declaration of Independence
9. Eli Whitney	9. First President of United States
10. Lewis and Clark	10. Pioneer of middle west

*(c) One-Choice Recognition Test*

Underline the correct word:

1. The inner layer of the skin is called the dermis, epidermis, pleura.
2. The tube leading to the lungs is called the esophagus, trachea, eustachian tube.

3. The union of two bones is called a ligament, tendon, joint, cartilage.
4. Balboa, Drake, Hudson was an English sea rover.
5. Patrick Henry was a great general, artist, inventor, orator.
6. The United States owns Alaska, Canada, Cuba, Greenland.
7. Gold, iron, copper is mined extensively in Arizona.

*(d) Completion Test*

Complete the following statements :

1. The largest flour milling center in the United States is . . . . .
2. The chief center for the manufacture of automobiles is . . . . .
3. The river on which the city of Washington is located is . . . . .
4. A national park in western United States is . . . . .
5. Lincoln was shot by . . . . . in the year . . . . .
6. A check should be indorsed on the . . . . . and on the . . . . . hand end.
7. . . . . is now president of the United States, and his term will expire on March . . . . , 19. . . .

*(e) Single-Word Response Test*

1. Name the instrument used to measure temperature. . . . .
2. How many zones are there? . . . . .
3. Which battle was the turning point in the Civil War? . . . . .
4. In which organ of the body is bile formed? . . . . .

*(f) Multiple-Choice Recognition Test*

1. *Underline capitals:* St. Paul, Minneapolis, Madison, Milwaukee, Chicago, Boston, San Francisco, Sacramento, Athens, New Orleans, Albany, New York, Rochester, Philadelphia.

2. *Underline names of rivers:* Erie, Amazon, Thames, Baltic, Black, Po, Seine, Missouri, Argentina, La Plata, Peru, Volga, Washington, Colorado.

*(g) The Analogy Test*

Insert the proper words in the blank spaces :

1. The Amazon is to . . . . . as the . . . . . is to North America.

2. The Gulf Stream is to the Atlantic Ocean as the ..... is to the ..... Ocean.
3. Washington was to the establishment of our government as ..... was to the saving of the government.
4. As whole numbers are found to the ..... of the decimal point so ..... are written to the ..... of it.
5. The President is to the whole country as the ..... is to any state.
6. The saliva is to the mouth as the ..... is to the stomach.

**Scales: nature, kinds, uses.** Two of the most widely used measures are the Ayres Scales — one *A Measuring Scale for Ability in Spelling* and the other *A Scale for Measuring the Quality of Handwriting of School Children*. A scale is a measuring standard or instrument by means of which the teacher may judge a pupil's finished product. In the *Ayres Scale for Handwriting* eight samples are given, ranging from the poorest, with a value of 20, up to the best, with a value of 90. This is the Gettysburg Edition of the scale, and may be secured for fifteen cents by writing to the Russell Sage Foundation, New York City. In using the scale the teacher slides the pupil's writing along the scale until it comes to the particular quality which it most nearly resembles. *Quality*, rather than *style*, should be kept in mind, as the criterion or standard for comparison.

The *Ayres Scale for Ability in Spelling*, which also costs fifteen cents, contains 1000 words arranged by grades. Teachers should have the accompanying monograph, also. "All the words in each column are of approximately equal spelling difficulty. The steps in spelling difficulty from each column to the next are approximately equal steps. The numbers at the top indicate about what per cent of correct spellings may be expected among the children of the different grades. For example, if twenty words from column H are

given as a spelling test it may be expected that the average score for an entire second grade spelling them will be about 79%. For a third grade it should be about 92%, for a fourth grade about 98%, and for a fifth grade about 100%."

There are many scales now on the market in reading, spelling, arithmetic, handwriting, composition, and some other subjects. Woody's *Arithmetic Scales* in the four fundamental rules are well known. The *Nassau County Supplement to Hillegas' A Scale for the Measurement of Quality in English Compositions by Young People* has been used by the author repeatedly. The directions for measuring on the Hillegas Scale are as follows: "Compare the quality of your composition with the quality of the samples on the scale. Assign to your composition the numerical value of that evaluated sample which most nearly equals it in merit." Dr. Strayer states that "Teachers who use the English Composition Scale will find themselves becoming more critical of the adequacy of the thought expressed in the compositions written by children, and possibly somewhat less concerned about the formal side of the work." The Hudelson *English Composition Scale* is now used extensively, also, and some think it more accurate and usable than the Hillegas Scale. Thorndike's *Handwriting Scale* is used extensively throughout the country. Burgess' *Scale for Measuring Ability in Silent Reading* is, like Ayres' *Spelling Scale*, accompanied by a book giving a discussion of the subject.

**The normal distribution curve.** When intelligence or achievement tests are given to large, unselected groups of children or adults, it is found that the results indicate a distribution of abilities which will approximate what is called a *normal distribution curve*. Instead of a grouping of individuals into good and bad, bright and dull, and the like, it is

always found, in large unselected groups, that there is a large middle or average number and a grading down to the very good and the very weak on either side. For example, it is quite common at the present time in secondary schools and colleges to use the letters A, B, C, D, E, instead of per cent marks, to designate the grades of the students. As a result of the usual examination, the members of a class of

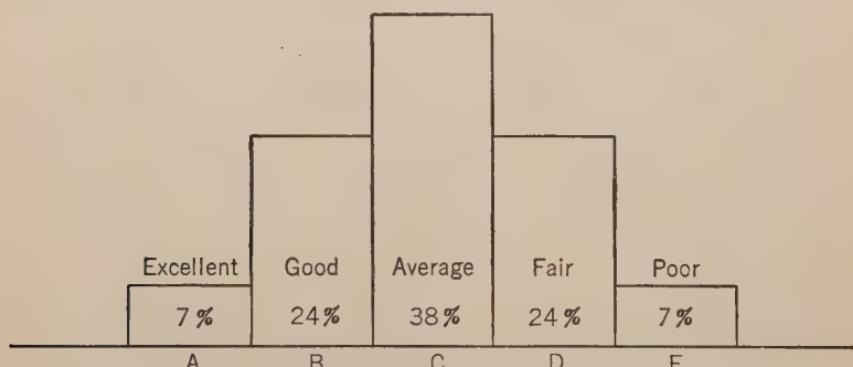


Fig. 6.—Suggestive basis for grading class papers, etc.

one hundred students, to illustrate, would be arranged approximately as shown in the graph above.

It should be emphasized that such a normal distribution does not occur in all this uniformity unless the numbers are relatively large and are of miscellaneous or varying abilities. If a list of words suitable to fourth-grade ability is given to an ordinary eighth-grade class, the above distribution of results does not obtain, because the *group is selected*.

Dr. Betts, in *The Mind and Its Education*, represents the usual situation as to intelligence in the graph on the following page.<sup>1</sup>

From this diagram it is seen that about two thirds of any considerable group of either children or adults will possess

<sup>1</sup> By permission of the publishers, D. Appleton, New York City.

medium grade intelligence, about one sixth high grade mentality, and about one sixth low grade mentality. About two individuals out of three in any average good-sized group are of average or medium-grade mentality, or intelligence. Here we have a good illustration of the normal distribution curve; it applies to the results of achievement tests equally well.

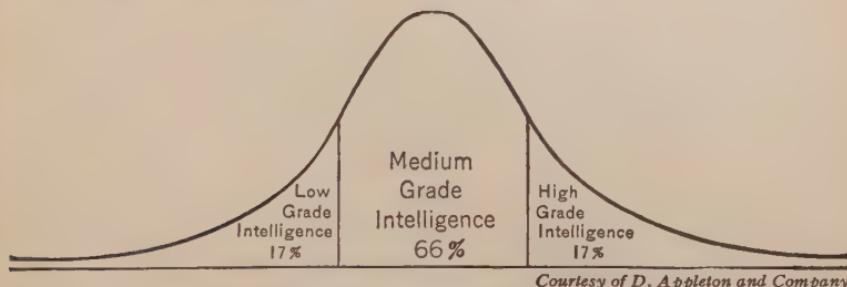


Fig. 7.—How people vary in general ability

Let us suppose that one hundred pupils in the eighth grade are given a standard test in division of all kinds of numbers, and that we wish to tabulate the results and to graph the distribution curve. The following chart and diagram will be needed first of all :

RESULTS OF THE DIVISION TEST		
A	95 to 100 5 + 1	6
B	90 to 95 5 + 5 + 5 + 1 + 1 + 1	18
C	85 to 90 10 + 10 + 10 + 1 + 1 + 1 + 1	34
D	80 to 85 10 + 5 + 5 + 1 + 1	22
E	75 to 80 5 + 5 + 1 + 1	12
F	Below 75 5 + 1 + 1 + 1	8
	Total	100

This chart is self-explanatory. Six pupils did excellent work, and eight pupils failed. *Why* did they fail? Nearly three fourths of the total number did work between 80 and 95 per cent.

When the scores shown in the above distribution chart are graphed, they appear thus:

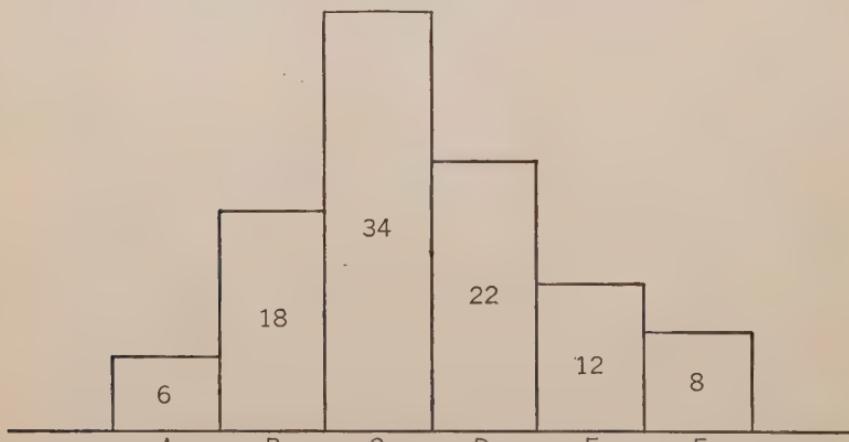


Fig. 8.—Average distribution of one hundred students

Teachers will find that by the use of distribution tables and graphs they will get a much clearer understanding and appreciation of the work they are doing and of the progress of their pupils. With some teachers instead of an approximation to the normal distribution curve there are either too many with very high marks or too many with the other extreme. Such a situation needs to be analyzed. Teachers should bear in mind that not every class shows a normal distribution. As an actual fact, in most classes the results of a test will disclose a departure from the normal of greater or less degree. The larger the group tested, and the more miscellaneous their abilities, the more nearly will we get a normal curve of distribution of scores.

## REVIEW, TEST, AND PROBLEM EXERCISES

1. (a) Make out a set of ten examination questions in upper grade geography, and try to get them all of equal value. (b) Give these questions to an average thirteen-year old pupil, and then have the paper marked by three competent teachers, independently of each other. Compare the results.
2. In addition to intelligence and achievement, do you think it is also possible to measure *personality*? Tell how you would go about it. Enumerate twenty-five personal qualities or character attributes to be measured.
3. Why do you think it would be wrong to judge a pupil simply upon the basis of one intelligence test? What factors should determine promotion?
4. Supposing a class of forty pupils are given a reasoning test of fifteen problems: No pupil works less than four correctly, and no pupil works more than twelve correctly. Assume numbers of pupils for each of 4, 5, 6, 7, 8, 9, 10, and 11 problems; then tabulate, and graph the distribution for the entire class.
5. Show that the old form of examination questions does not possess the marks of a scientific test.
6. Do you think Dr. Bagley is correct in his criticism given on page 389? Is there no such thing as general learning ability?
7. To the best of your ability tell what you understand intelligence to be.
8. Why does not the bright child get as square a deal in the average school as the dull child? Why are there more retarded bright pupils than retarded dull pupils?
9. What is the difference between an intelligence test and an achievement test? Why are diagnostic tests so useful? In what forms of diagnosis should a teacher be most interested?
10. Secure samples of several kinds of tests, together with the directions for giving and scoring. Then arrange to give different ones to groups of children. Which tests have you taken yourself? What is your I. Q.? Your A. Q.? Your E. A.?
11. Give several reasons why you think any teacher would secure better results in her work if she used standard tests and measurements.
12. Figure the cost of using intelligence tests and reading and arithmetic tests for one year in a rural school of twenty pupils. Fifteen of these are in the first five grades.

## REFERENCES FOR THE TEACHER'S READING AND STUDY

AYRES, L. P.—*Ayres Handwriting Scale*, "Gettysburg Edition." Single copy, each \$.15; 3 or more, each \$.13.

BRANOM, MENDEL E.—*Practice Tests in Geography*; The Macmillan Company. Complete, \$.80. In two parts, each \$.48.

BUCKINGHAM, B. R.—*Buckingham Scale for Problems in Arithmetic*. Per 100, \$1.00. Direction Sheets, each \$.02.

CLAPP, F. R.—*Clapp's Standard School Test: Correct English*. Grades 5 to 8. Forms A and B. Equivalent Forms, per 100—\$.125; Directions for Scoring—\$.02.

FOWLKES, J. G., AND GOFF, T. T.—*Practice Tests in Arithmetic*; The Macmillan Co. \$.80.

GREGORY, C. A., AND SPENCER, P. L.—*Gregory-Spencer Geography Tests*. Grades 6, 7, and 8. Forms A and B, 1-25; each \$.05; Class Record Sheet—each \$.01; Score Card—set \$.05.

HAGGERTY, M. E.—*Haggerty Intelligence Examination*, Delta 1—Grades 1 to 3. Package of 25 (package not broken) includes 25 Examinations, and 1 record sheet—\$.175; Key for Delta 1—\$.15.

HAGGERTY, M. E.—*Haggerty Intelligence Examinations*, Delta 2—Grades 3 to 9. Package of 25 (package not broken) includes 25 examinations and record sheet—\$.170; Key for Delta 2—\$.10; Manual of Directions—Delta 1 and 2—\$.40.

OSBURN, WORTH J.—*Wisconsin Inventory Tests*; Public School Publishing Company, Bloomington, Illinois. All of these inventory tests sell for one dollar per hundred. Tests I to VIII.

THORNDIKE, E. L., AND MCCALL, W. A.—*Thorndike-McCall Reading Scale*. Grades 2 to 12. Any form, less than 50, each—\$.03.

WOODY, C., AND MCCALL, W. A.—*Woody-McCall Mixed Fundamentals*, Grades 3-8. Forms 1 and 2; per 100, \$.60. Direction Sheets, each \$.01.

*Iowa Spelling Tests, 1 and 2*. Grades 2 to 8. Each—\$.10; numbers less than 10—\$.07½; 10-24—\$.05.

The Virginia State Rural School Manual contains the following list of

*Suggested Tests for Elementary Schools*

**1. Arithmetic**

a. MONROE, W. S.—*Diagnostic Test*

b. WOODY, C.—*Four Fundamentals*

**2. Intelligence**

- a. OTIS, A. S. — *Group Intelligence Test*
- b. TERMAN, L. M. — *Group Intelligence Test*
- c. TERMAN, L. M. — Stanford Revision of the Binet-Simon Test (Individual.)

**3. Language**

- a. HILLEGAS, M. B. — *Scale for Measuring the Quality of English Composition*
- b. HUDELSON, E. — *Scale for Measuring the Quality of English Composition*
- c. TRABUE, M. R. — *Language Completion Test*

**4. Reading**

- a. BURGESS, MAY A. — *Picture Supplement*
- b. GRAY, W. S. — *Oral Reading Test*
- c. MONROE, W. S. — *Standardized Silent Reading* (Speed and Comprehension). Burgess or Holmes are also good.
- d. STONE, C. R. — *Narrative Reading Test*
- e. THORNDIKE, E. L., AND MCCALL, W. A. — *Reading Scale* (Comprehension.)

**5. Spelling**

- a. AYERS, L. P. — *A Measuring Scale for Ability in Spelling 1000 Most Commonly Used Words*
- b. *Iowa Spelling Scale* — 3000 words
- c. JONES, N. F. — *100 Demons* (difficult words in common use.)
- d. STARCH, D. — *600-word list*

**6. Writing**

- a. AYRES, L. P. — *Writing Scale*
- b. FREEMAN, F. N. — *Writing Scale*
- c. STARCH, D. — *Handwriting Scale*
- d. THORNDIKE, E. L. — *Writing Scale*

*Note.* — In quoting prices in this chapter the author has used the latest available catalogues, but calls attention to the fact that prices may change without notice.

## CHAPTER XXI

### PROBLEMS — PROJECTS — MOTIVATION

**The inevitable reaction.** The record of the growth and development of classroom procedure during the past quarter century is interesting and instructive to those who are in the midst of the problem and continually searching for better ways of teaching. Formal methods, in which subject matters rather than the needs of the child were stressed, have been in vogue not alone in decades gone by ; even in the present day there is much of this kind of teaching going on, particularly in rural schools. During the past ten years and more repeated efforts have been made to break up the lock step of formal, testing technique by means of the socialized recitation, motivated activities of various sorts, and the use of problems in geography and history ; now we have the project plan and method as the one best calculated to secure the maximum of pupil self-activity and the greatest personal development of the child in independence, initiative, and judgment. There is a constant tendency on the part of thinkers in the field of education to try out methods which will result in greater pupil response, more active personal participation, and more extended social coöperation. It is inevitable that every thoughtful teacher will become dissatisfied with the formal hearing of lessons, in which mere unthinking memory activity largely prevails. Such a teacher will see that vital teaching must meet the genuine needs of the child as shown in the formulation and solution of personal problems growing out of actual personal difficul-

ties. If the school is to prepare children to solve the problems of life, surely some form of dynamic teaching is necessary.

**Nature and attributes of the problem.** Life abounds in problems. We are continually confronted with situations which puzzle us more or less. We don't know what to do under a given set of circumstances, there is confusion, the conditions are difficult, we cannot see our way out. Such problems are of great variety. Some of them are small and relatively insignificant; others are large and far-reaching in their consequences. An aching tooth is a problem, but an aching heart is a larger one. Older people should not think that the problems of children are of no importance. To the child his personal problems are of great significance. The duty of older people is to teach children how to solve their problems.

Many of our decisions have been handed over to the "effortless custody of automatism," that is, to habit. We even have habitual ways of solving problems. However, our habitual ways of reacting do not solve all of our problems; so we are forced to think. It is of course true that some people do very little thinking because thinking is hard, even painful, and most people seek the line of least resistance, the way of habitual response. The problem implies purposeful, intellectual activity in which the individual attempts to answer a big, more or less complicated question by canvassing the various alternatives and then making some choice. A problem presents a situation demanding choice. In the work of the school every subject comprises many problems if only the teacher and the pupils can find them and formulate them. Take so simple a matter as learning a word. The old, orthodox method was mechanical repetition of the letters. We now actually *study* words, which means that we

find problems in words. In the word *grammar*, for example, there is probably one letter which is usually the problem. Which one is it? What is the difficulty with the words *separate*, *believe*, and *receive*? Now we study and teach words because we find problems in words.

**Dewey's definition.** John Dewey, one of our foremost living students of educational problems, defines the problem as follows:<sup>1</sup> "Every conscious situation involving reflection presents a distinction between certain given conditions and something to be done with them; the possibility of a change. This contact and connection of the given and the possible confers a certain problematic, uncertain aspect upon those situations that evoke thought. There is an element, which may be slight, or which may be intense, of perplexity, difficulty, or confusion. The need of clearing up confusion, of straightening out an ambiguity, of overcoming an obstacle, of covering the gap between things as they are and as they may be when transformed, is, in germ, a problem."

In another connection Dewey shows plainly that the school does not usually provide the natural setting for the actual problematic experiences of the child. He says: "There can be no doubt that a peculiar artificiality attaches to much of what is learned in the schools. It can hardly be said that many students consciously think of the subject matter as unreal; but it assuredly does not possess for them the kind of reality which the subject matter of their vital experience possesses. They learn not to expect that sort of reality of it; they become habituated to treating it as having reality for the purposes of recitations, lessons, and examinations. That it should remain inert for the experiences of daily life is more or less a matter of course. The bad effects are two-fold. Ordinary experience does not receive the enrichment which

<sup>1</sup> DEWEY, JOHN — *How We Think*; D. C. Heath and Company.

it should ; it is not fertilized by school learning. And the attitudes which spring from getting used to and accepting half-understood and ill-digested material weaken vigor and efficiency of thought. Where schools are equipped with laboratories, shops, and gardens, where dramatizations, plays, and games are freely used, opportunities exist for reproducing situations of life, and for acquiring and applying information and ideas in the carrying forward of progressive experiences."

**Problems and thinking.** Julius Boraas, in his suggestive and useful book, *Teaching to Think*,<sup>1</sup> in common with some other writers, makes thinking a *form of behavior*, inner behavior which he contrasts with outer behavior. Professor Boraas makes clear the great economy and advantage of this inner behavior as compared with outer trial-and-error behavior, which is wasteful of time and energy. He says: " Regarded from the standpoint of outward activity, thinking is an inward activity. ' Stop and think ' does not mean that all activity shall cease, but refers merely to outward work. In this sense, recalling past experiences, imagining new things, solving a problem, systematizing a mass of details, constructing an argument, and judging of values are all classed as thinking." Kilpatrick, in his recent book, *Foundations of Method*,<sup>2</sup> states that " thinking is a meaning appropriately at work." It is important that children get many and exact meanings as the basis for thinking. " Practical thinking is a foretelling of what to anticipate or expect when one faces a situation." " Thinking is to be considered an adventure into the unknown future."

Problems imply thinking. A problem suggests thinking. The problem can be solved only through thought processes.

<sup>1</sup> BORAAS, JULIUS — *Teaching to Think*; The Macmillan Company.

<sup>2</sup> KILPATRICK, W. H. — *Foundations of Method*; The Macmillan Company.

If a situation suggests an habitual mode of response, there is no problem and no need for thought. Most of us do not need to put much thought upon the matter of truth telling. When a situation arises which requires that we either tell the truth or falsify, our habitual way of responding truthfully will settle the matter quickly. Thinking is demanded when a new situation presents itself which is different from preceding situations.

We commonly use the word *thinking* to comprise any and all mental activity. We say, "I didn't think," for example, which in this case may mean "I didn't remember." Or we say, "I can't think how to start a Ford car," when certain conditions exist. In the latter case a course of imaging and reasoning is suggested, as well as one of mere memory results. In the strict psychological sense thinking means reasoning — a reflective process, at any rate. When a situation causes us to think, it produces a reflective state of mind in which we weigh various items or data to fix upon some conclusion. Sometimes our problem-solving thought is confined wholly to our minds; we might term this *subjective* thinking. In solving problems in arithmetic and geography there is usually no more than this mental activity involved.

But sometimes our problem solving takes us actively into the field of things — the *objective* phase of the process. For example, the soft water tap at the kitchen sink does not cause any flow of water, though wide open. Here is a problem, which in this case is not so difficult when we consider that tank and pipes are in the attic, and that the temperature has been twenty degrees below zero. Or in this particular instance the solution may be faulty because the proper pipe is not heated. When a piece of pipe about two feet long is given proper attention the water soon begins to flow. Faulty thinking failed to locate the source of the trouble.

More accurate thinking of the objective sort soon produced results.

One of the important elements to consider in this question of problem solving is that of the need for experience to furnish the means for making solutions, for doing the thinking. No one, child or adult, can solve problems or do any effective thinking without the raw material of ideas, images, experiences of suitable kind and extent. We interpret life in terms of what we already possess. He who has had the widest experience in life and profited by it will have the largest fund for problem solving. That is the reason why an intelligent, observing, active man or woman accumulates wisdom with age. It takes time to learn to judge and to form conclusions which are well-founded and safe. One of the functions of the school is to give the child as many normal, useful, typical experiences as possible. This explains dramatization, excursions, school exhibits, and construction work. School life and life outside of school should dovetail into and mutually reinforce each other. Children differ greatly in their experiences according to their social station in life and their opportunities for seeing, doing, participating, and learning through actual living. In the better schools children are given opportunity to do many useful things, and actually to participate in a variety of coöperative, social activities.

The up-to-date teacher trains pupils to find problems in their study and in all work of the school. As the class exercise proceeds, if it is placed upon a thinking basis, the teacher will often stimulate pupils to suggest problems which may be formulated at the time and written on the board, or which may be left for formulation as a part of the study procedure. Many rural teachers do not make use of many problems themselves because they have not been trained in the dis-

covery and stating of problems. There are countless problems connected with the successful operation of a rural school, and a thoughtful teacher is continually finding new problems in the daily situations.

After a problem has been clearly and definitely stated, the next step is to find the means of solution. If, for example, the work is in geography, the pupils should be trained to find all the facts which the textbook contains, bearing upon the question for study. Pupils need to be shown time after time how to use their books to get answers to questions. This is a practical form of silent reading. Then, in addition to the basal text, there are the dictionary, the encyclopedia, and the other reference books of the library. Pupils require daily training in using books for problem solving. Many times, besides using books, people need to be consulted, maps made, diagrams drawn, in order to solve the problem. In all successful thinking the problem is kept clearly in mind. Often it must be stated and restated so that it will not be forgotten or ignored. Finally, when an answer has been secured, means should be taken to test the results, or to check up to see if the conclusions are correct. Pupils thus form the checking-up habit, a valuable life habit for every one of us, in order to avoid error and to arrive at safe and usable conclusions.

**Advantages of the problem method.** 1. The use of problems necessarily stimulates pupils to think, and the processes of solution train pupils in right habits of thinking. While much of life is controlled by habit, it is true that the progress of the human race in every field of endeavor is due to thinking activities. In a democracy it is of the utmost importance that each citizen, so far as possible, be trained to think for himself.

2. The problem method tends to break up the formal

routine of the usual recitation procedure. When pupils have concrete problems of personal interest, there is much more likelihood of having a free discussion, a conversational exercise, a general give-and-take, in which ideas and suggestions are weighed and valued for what they are worth.

3. Through the use of stimulating and well-formulated problems the necessary facts which the child must learn will be fixed in mind by a rational process and not by dreary, unthinking, mechanical drill exercises. Is the schoolroom, for example, adequately lighted? What must be known and what must be done to solve this problem? In the course of the solution, pupils will get valuable drill in computing areas of rectangular surfaces and are much more apt to remember the process because it is related to a definite, practical, interesting problem.

4. Lesson assignments in the form of problems are always more interesting to pupils than page assignments. Moreover, if problems are assigned, pupils have definite work for the study period. There will be a real objective, and a particular line of approach and attack will be set up for pupils' efforts. Children of varying abilities, moreover, all find suitable work to do.

5. It goes without saying that a problem arouses interest. Life never grows stale so long as it affords enough problems which are neither too hard for us to work out, nor so easy as to give no adequate stimulus. Moderately difficult, perplexing situations give zest to life and spur us on to effort. So it is in school. A teacher who uses problems in geography, history, reading, as well as arithmetic, never complains of lack of interest.

6. The rational, thoughtful solution of worth-while problems develops initiative, self-reliance, and independence, and prepares the pupil for participating, effective citizenship.

One of the legitimate charges against the public school has been that pupils are not adequately trained in such qualities of character. Such deficiencies may usually be traced to formal methods of class procedure.

7. Problems motivate school work, and motivation is greatly to be desired. The usual testing recitation can never motivate school work as it should be motivated, because of its lack of reality and of personal appeal. A rural teacher needs to motivate her work even more than a grade teacher, because of its assistance in solving the problem of discipline.

8. Problem solving prepares for life, and surely that is what the schools are for. Very much that is done in some schools not only does not prepare for successful living, but, on the contrary, actually weakens the child for meeting the affairs of life. A teacher is on the right track when she connects her school work with concrete realities as much as possible.

9. The use of problems secures purposeful activity in place of mere formal book study and mechanical recitation work. The best writers at the present time are stressing the need for aim or purpose in the work of the school; a little thought makes it clear that, other things being equal, those who set up definite goals toward which they steadfastly work are the ones most apt to succeed in all walks of life.

10. Problems add reality to school life. We should look upon the school not simply as preparation for life, but as life itself. In the best elementary schools, like those connected with Teachers College, Columbia University, and the University of Chicago, for example, pupils engage in all sorts of real life activities, getting experiences in this way which are highly educative.

**Training pupils to think.** Probably no teacher can render her pupils a greater service than to teach and train them to

think accurately and persistently when confronted by a problematic situation. The following comments and suggestions are offered in the hope that teachers will find them useful in pointing the way to a better type of teaching :

1. Successful living demands a certain critical habit of mind such as leads the individual to challenge statements for the purpose of ascertaining their truth and validity. There is a gullible type of person who is easily hoodwinked and made to believe all sorts of things. The school should do all in its power to develop the habit of testing statements and of judging the value of evidence.

2. Every effort should be made to have pupils get clear and definite meanings of the words and terms in arithmetic, geography, physiology, and other subjects. Many pupils have trouble in thinking because they do not know the exact definition which lies at the basis of the solution. The dictionary may be a help or a hindrance, depending on how it is used. Most dictionary work had better be group study under the teacher's personal direction.

3. Pupils can be trained to ask *Why is this true?* or *Why is this not true?* in the process of clearing up a situation. For example, in the sentence, "There is a tide in the affairs of men," is the first word an adverb or not? John says it is an adverb. All right, let him prove it. He finally discovers that the word does not conform to the definition test; so it must have some other function. What is it?

4. Children need to be shown over and over again the vast difference between mere personal opinions and real knowledge. The ability and the habit of forming opinions only upon the basis of as much evidence as can be secured are of great value to any person. Pupils should sharply distinguish mere opinions from knowledge. Opinions may be helpful

and necessary, but, as Sam Jones used to say, we should take off our hats in the presence of a *fact*.

5. Teach pupils to face the facts and not side-step or run away from them. In matters of sanitation and hygiene, to illustrate, some otherwise intelligent people scoff at the anti-toxin treatment for diphtheria or the use of the Schick Test. These are the same people who say there is no value in vaccination for smallpox. Consult the facts in the case. Then, if you are a reasonable person, there is only one possible conclusion.

6. Use every means at hand to overcome prejudice and superstition. Unthinking people are often filled with all sorts of prejudices and entertain the most foolish superstitions. How can a thinking person be so afraid of the number 13 that he will not sit down with twelve others at the table or take room 13 in a hotel under any circumstances? Many hotels have no room 13, for they know it will seldom be occupied. Honest thinking will do away with such prejudice and superstition.

7. Training in thinking involves the evaluation of statements and their arrangement in order of importance. If the teacher frequently says, "In this paragraph what do you think is the most important statement?" pupils get good practice in a phase of the thinking process. Such a question in geography, history, and reading is a useful one. Selecting topic sentences and names for paragraphs will further concentration, careful silent reading, and more accurate thinking.

8. The habit of suspending judgment is one which makes for better thinking and the avoidance of many unnecessary troubles in life. Pupils can be taught to wait for more evidence before deciding the question which is under consideration. Many times the acquisition of more ideas places the

matter in an entirely different light. Jumping at conclusions is a risky and even a dangerous habit of mind. The school should train for the opposite habit.

9. Thinking is seeing relations, which means making comparisons. Everything in the world is related; the best thinkers, such as Edison or Marconi, are the people who see the most relations, particularly the more subtle but significant ones below the surface.

10. Conclusions need to be tested; one of the most valuable habits in life is that of checking up results to see whether they tally with facts and reality. School people can find many lessons in this checking up in the great world of industry. In every industrial plant, like the great Ford shops at Detroit, the greatest pains are taken to check up on all products, materials, and processes in order to avoid waste and to promote efficiency. In school work answers and results should be repeatedly checked to prove their correctness.

11. Teachers should realize that requiring exact statements is one of the best ways to promote exact thinking. Our modes of expression have decided influence upon our ways of thinking. Teachers must not accept loose, inaccurate, half-truths; they should hold pupils to clear, correct formulation of their thoughts, if they would train them not only in English, but in thinking.

12. It is useless simply to tell children to think, to concentrate, or to study the lesson. Pupils must be shown how to think, to concentrate, or to study. Thinking is often a complex process involving certain necessary steps, such as finding and stating the specific problem, accumulating the data or facts for solution, trying out various ways of doing, and finally deciding on what seems the correct way. Sometimes thinking is the simple process of getting meanings

and of understanding ordinary relations between ideas or meanings.

13. In the problem-solving or thinking procedure the state of mind is of prime importance. Real thinkers are cool, calm, poised, and patient. They do not hurry and they do not worry. They deliberately and confidently set up aims or goals and seek the evidence which will bear on the question in hand. They avoid overconfidence as well as a doubtful, pessimistic attitude. They are seeking after truth, and they welcome truth wherever it can be found.

14. The careful thinker is willing to try several ways in order to find the best way. If the class is working on the problem of a class or school paper, for example, and the particular question up for decision is a suitable name for the paper, the thoughtful members of the class will be willing to take several days, if necessary, to solve the problem most satisfactorily. Perhaps a score or more names will be gathered from various sources ; finally one will be found which best meets the local requirements, in the opinion of the class.

15. There are many opportunities in the work of the school to show the practical value of thinking. In a rural school the farm situation offers an abundance of material. Every successful farmer must think. He is continually meeting new problems. On the other hand many farmers fail in greater or less degree because they are groove-runners. They do things this year as they did the year before. They are the victims of tradition, custom, prejudice, and they lose out because of this mental attitude, because of unwillingness or inability to think.

**The problem method in geography.<sup>1</sup>** As teachers of geography our task is not merely to teach geography facts ; we must

<sup>1</sup> For this section the author is indebted to Ginn and Company, publishers of *Teaching the New Geography*, by W. W. ATWOOD AND HELEN G. THOMAS.

hold constantly before us the ideal of training students in clear thinking and sound reasoning power. No one has discovered any better method in teaching than the open, frank discussion of a problem. This method serves as the basis of the so-called socialized recitation. It is not new. Every great teacher from the time of Socrates to the present day has made use of it.

The teacher's first duty in beginning a problem is so to motivate the work that the pupils may come to make the problem their own. If it is arbitrarily thrust upon them simply as an exercise to be performed, it fails to arouse interest and therefore loses much of its value. Some point of contact must be made between the actual life of the pupils and the problem to be solved. Since the school children of this country live under widely varying conditions, no general rules can be laid down for this personal-contact motivation. Each teacher must adapt her problem work to the peculiar interests of her class. For example, the children of San Francisco can be interested directly in a problem concerning our trade relations with the Orient through their personal experience in seeing at the docks or in San Francisco Bay the ships that ply in the oriental trade, or by their visits to oriental importing houses and their personal familiarity with many oriental products. The children of New York, on the other hand, have no such personal contact with this problem. Their introduction to it should be made through a preliminary study of the products of the Orient that have a definite relation to their daily lives — tea, rice, and silk. A consideration of the importance of these products to the people of New York will lead to a keen interest in finding out how they are brought from the Orient, and upon the basis of the curiosity aroused on this point a problem concerning our oriental trade as a whole may be motivated.

If the teacher once grasps the idea that she is before the class not merely to hear a recitation but to train the pupils, the whole life of the classroom will center about the solution of problems. It will become the scene of frank discussions in which the pupils will take part with the teacher, and in which the teacher will have almost an unlimited opportunity to influence the mental growth

of the pupils. She will strive to develop the intellectual power of each pupil, to strengthen his character, and, ultimately, to prepare him adequately for the solution of more and more difficult problems as he grows older.

#### ILLUSTRATIVE PROBLEM QUESTIONS IN GEOGRAPHY

1. Why is foreign commerce essential to the development of Japan?
2. Why has the Mississippi River not been developed as one of the main avenues of transportation in the United States?
3. May we expect San Francisco or Seattle to become the leading Pacific Coast port a hundred years hence?
4. Philadelphia was at one time the largest city in the United States. Why have New York and Chicago outstripped it in population?
5. Why did the people of Great Britain develop manufacturing earlier than any other nation?
6. With what South American countries will the United States probably develop the largest trade relations in the future?
7. Will Africa ever be as densely populated as Europe?

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#### ILLUSTRATIVE HISTORY PROBLEMS

1. Compare the independence of the old New England farmer with that of a farmer of to-day in the middle west.
2. Suppose that George Washington could come to the city of Washington. What would he find that would be of extreme interest to him?
3. In what respects has the railroad been a great civilizing agency?
4. Compare the means of communication and transportation to-day with what they were one hundred years ago. How will it be one hundred years hence?
5. Compare the amusements of people to-day with what they were in the days of the Puritans.
6. What great changes has the invention of the gas engine produced in the world?

7. The great Constitutional Convention met in Philadelphia in May, 1787, and lasted all summer. Washington and Franklin were there. Write out a twenty-minute conversation which these two great men might have had at the tavern in the evening after the day's session was ended.

**Definitions of Projects.** Many writers have recently set forth their notions of the meaning of the term *project*. It will help the young teacher to clarify her thinking if she will carefully study these definitions and explanations of projects:

A project is a problematic act carried to completion in its natural setting. — STEVENSON

The project is considered to be an act carried to completion in its natural setting, and involving the solution of a relatively complex problem. — CHARTERS

The term project contemplates a complete act (or experience) which the agent projects, purposes, and within limits, sees through to completion. — KILPATRICK

A project is a wholehearted, purposeful activity proceeding in a social environment, or more briefly in the unit element of such activity, the hearty purposeful act. — KILPATRICK

A *problem* is a life topic (unit of learner's experience) in which the processes and objects of learning are largely mental.

A *project* is a life topic in which the processes and objects of learning are largely manual.

An *appreciation unit* is a life topic in which the processes and objects of learning are largely emotional.

It should not, of course, be understood that there will be no manual elements in a problem or that there will be no thinking in a project; much less would it be safe to come to the conclusion that there will be no appreciation in problems and projects. — STONE.

I understand by project a complete unit of experience. The essential aspects or elements of an experience are, in the simplest form, a situation and the response to it. This, however, will not

describe adequately what is meant by the type of experience called complete. Such a unit includes the following phases: situation, problem, purpose, plan, criticism of the plan, execution, judgment of results, appreciation. This is, of course, not a chronological order, strictly speaking, as a feeling of appreciation will spring up in anticipation of the outcome, while on the other hand, purpose persists and plan is modified to the very end. Negatively, the project is not to be confused with mere problem, with motivation, with incidental learning, with correlation, with self-activity, or with the idea of general method as illustrated by the Herbartian formal steps. To understand what the project method is we have only to go out into life and study any case of purposeful living. Perhaps, then, the word purposeful should be added to the original definition of a project — a concrete unit of purposeful experience. This will distinguish the project method from ordinary habitual reaction, as thinking, planning, criticizing, etc., are essential. I may add that the results to flow from the project will include growth in initiative, in power to think, in judgment of values, and in appreciation, as well as in concentration and power of organization, at least within the range of specific suggestions in which the experience functions.<sup>1</sup> — HOSIC-STEVENSON

Professor Stevenson comments (p. 85) on the statements by Hosic, as follows:

This characterization provides for reasoning as against the memory of information, for in the unit of learning he includes situation, purpose, plan, criticism of the plan, execution of the plan, judgment of results, and appreciation. In carrying out this unit new situations would arise which would demand reasoning. Since the unit of experience provides for execution, it contemplates carrying the act to completion. In another summary Hosic indicates that the project is an 'organization of school life in accordance with life in the home and community'; hence a natural setting for the problem is provided.

<sup>1</sup> STEVENSON, J. A. — *The Project Method of Teaching*; The Macmillan Company.

Alice M. Krackowizer says:

Any purposeful activity determined upon and carried to a successful conclusion becomes a project.

Projects of all kinds, involving play, social experience, nature experience, constructive activities, are part of the child's daily life, long before he enters school; they should continue as parts of his daily life under normal conditions while he is in school.

All projects include the problem type in so far as they are not merely unconscious responses. The process of carrying out projects includes thoughts, suggestions, and activities rejected as well as those finally selected as pertinent.<sup>1</sup>

All of the above definitions of projects and the project method are quoted by Stevenson in his book. Stevenson concludes his Chapter III with these statements: *The provision for the natural setting of the teaching situation is the distinct contribution of the project method. Without the natural setting there is no project.*

**The problem-project method.** Some writers are now using this combination term to cover all of the activities which have heretofore been designated by the two terms, problem and project, used separately. The compound word seems best to express the general notion of both intellectual activity and of manual or externalized forms of doing — the subjective and objective phases of the participating, coöperating procedure. In geography problem solving as a rule involves simply the use of the various references, the textbook, magazines, the library, without much, if any, manual activity; whereas in agriculture we have in such a problem-project as the selection of seed corn a union of thinking with actual doing. Practically all projects involve one or more problems, and in subjects like geography, history, and even

<sup>1</sup> KRACKOWIZER, ALICE M.—*Projects in the Primary Grades*; J. B. Lippincott Company.

English there is always an enterprise to be carried out. The making of a bibliography is a problem-project, although of a different type from that of the hot lunch in a rural school. The term problem-project emphasizes both the thinking and the doing and stresses the fact that the two are to be associated in accomplishing a set purpose. The term problem by itself can be reserved to designate work of the thinking variety in arithmetic, algebra, or mathematical physics, where there is no need to include the idea of the project for the simple reason that the manipulation of things is absent.

**Two interpretations and views.** The project idea and method of teaching may be thought of as either a broad, comprehensive philosophy of general method or simply a special means of presenting certain types of subject matter, mostly those having to do with the world of things. In the broad sense, some thinkers and writers would have us believe that the project is the central, pivotal concept of learning and teaching, which will completely revolutionize our school curricula and practice. There is no doubt that we need a scheme of teaching that will breathe into instruction a greater element of reality and genuineness. In other words, as Hoscic puts it, we stand greatly in need of "dynamic teaching," which, he states, is "teaching that counts." There are those, and Hoscic among them, who think that in the project method we have at last found a doctrine and a technique which embodies the essence of true Americanism. Hoscic says: "The central doctrine that life at its best is active purpose, that people are at their best when they live so, that they learn best when they learn so, is fundamental." Again, "Life itself is dynamic; therefore school life must be dynamic." The project method seems to give us more of real life, the dynamic element, than anything heretofore pro-

posed. — Then there are many other school men and women who see in the project method simply one way of teaching among many. They do not expect the curriculum to be organized on a project basis, but instead they state that teachers will use this type of teaching to present certain sorts of subject matter and will never use it as an exclusive method. The writer of this book looks upon the project method as having so many limitations, particularly for the average rural teacher, that its use will always be restricted to definite fields of learning and teaching.

**Advantages and Limitations of projects.** *Five advantages.*

1. The use of projects tends to eliminate the formal from the course of study, an outcome greatly to be desired. In the very nature of the case, according to the above definitions of projects, it will be practically impossible to make purposeful activities, carried on in natural settings, formal or artificial.
2. Projects carried out naturally and intelligently provide a far wider range of pupil activities than do other methods commonly in use. In learning through projects the child is active mentally, morally, and physically. Mentally, the whole mind is alert and in operation, just as when we find children engaged in their own play projects, self-initiated. Not only is the child thinking, but he summons all of his experience to his aid in accomplishing his purpose. He is self-directive, and there is a wholesome emotional tone often absent in performing set school duties.
3. Projects make much of extracurricular activities; such lines of work as a school paper or a school society, in a rural school, for example, are often productive of very great pupil betterment and development.
4. A wise use of projects not only makes better provision for individual differences, but it affords the opportunity for

the individual to learn social, coöperative ways of working together very much more effectively than the usual recitation procedure.

5. Project teaching brings the home and the school into closer and more effective relations through the need for co-operative efforts. It is impossible to work out the hot lunch project, for example, in a rural school as it should be done, without the school and the home finding more in common, and without harmonious relationships growing out of such a project, wisely conducted.

*Five limitations.* 1. The use of project teaching thus far has failed to make adequate provision for habituation exercises or drills which are necessary in the elementary school in order to secure important practical skills. In arithmetic, for example, a large part of the work, say, in the first six grades consists of drill exercises which should no doubt be motivated as much as possible by interesting types of procedure, but which the project in itself does not take care of as it has been conducted thus far.

2. It frequently happens that the items of knowledge are left without effort to organize them into a definite system of logical arrangement. The project activity needs to be followed by a different type of teaching which will organize the facts used or the experiences gained into some definite, compact system for future use.

3. It is a fact that not all children enter whole-heartedly into all the projects proposed. Some are interested, and some are not because they have different interests and differing experiences. The project method in itself is not always a guarantee of interest and motivated activity with all pupils of a given class.

4. One of the serious limitations in a rural school is that use of the project method may make for disorder. Some

teachers seem wholly unable to use either the project plan or the socialized recitation without losing control, probably because of personal weaknesses and defects. Such persons will do well to make cautious and limited use of these teaching procedures until the technique of management becomes safe for them.

5. Hoscic states that there is the constant risk that the teacher will try out projects which are not worth while because they are lacking in proper educational attributes. A large number of teachers will use projects merely as the fad or fashion of the hour, like extreme styles in dress ; it is such people who help to bring all teaching into disrepute.

**Kinds of projects.** Projects have been classified in various ways by different writers. Stevenson calls attention to the distinction between *manual projects* and *intellectual projects*. Obviously a manual project involves a doing, a dealing with things in which the physical acts and outcomes are the chief aims. In a study of weeds, if the pupil sets about the task of finding several examples of each class of weeds and of learning how to identify them through making a collection, this would surely be a manual project. Collecting weed seeds and the making of posters might be a part of the procedure. On the other hand, if teacher and class decide to make a classified list of the various references in the school on the subject of weeds the work would be largely intellectual. Project work involving the use of books only is largely of the intellectual type.

Stevenson also classifies projects as *simple* and *complex*. It would be a simple project for a girl to set the dinner table, but it would be a complex project for the same girl to plan, prepare, and serve a four-course dinner for the faculty of the normal school. It would be a simple project for the arithmetic class to compute the lighting ratio of a country school-

house, but it would be a more complex project if the class went to a neighboring farm to measure the silo and make a set of problems pertaining to it. It is a relatively simple project for a normal student to prepare a news item for the city paper, giving an account of the Christmas program ; but it would be a more difficult and complex project for a committee of five students to have full charge of the Christmas program for the pupils in the training or practice department. These classes of projects overlap and are interdependent. Manual projects involve intellectual activity, and complex projects are usually made up of several simple projects.

Kilpatrick<sup>1</sup> gives four classes of projects, as follows :

1. Certain projects require that ideas be embodied in some *external form*. When a boy makes a kite or a girl makes a doll we have this kind of project illustrated. In school, if the class makes a salt and flour relief map of the state, there is a social project of this first type.

2. In this second kind of project the *aesthetic element* predominates. It is an activity, social or individual, in which enjoyment and appreciation are the uppermost aims. In a rural district teacher and pupils might very well have a program in the school society some afternoon devoted entirely to music. There could be group singing and individual selections. The Victrola could be used. Papers could be prepared giving accounts of some of the great composers.

3. In the third type of project, according to Kilpatrick, the chief thought is that of *problem solving*. There is a difficulty to overcome, a complex situation which needs to be unraveled. There are problems to solve in arithmetic, algebra, geography, and in the reading lesson. Some problems are large and some are small. There is a place in school for legitimate puzzles. Some-

<sup>1</sup> KILPATRICK, W. H. — *The Project Method*; Teachers College Record, Vol. XIX, No. 4. Only Mr. Kilpatrick's *Classification* has been used.

times a school becomes so mechanically minded that it needs something to stimulate it intellectually. For example, such problems as these two might be used as one means of helping to wake up a dead school. (a) A man and his wife, each weighing 150 pounds, with two sons each weighing 75 pounds, have to cross a river in a boat which is capable of carrying only 150 pounds weight. How will they get across if they use the boat? (b) If gasoline costs 25¢ a gallon and oil 25¢ a quart, what else will you need to know to compute the cost of gas and oil to run your car for one leap year? Use your figures and compute the total expense for gas and oil for a rural mail carrier, not counting Sundays and holidays.

4. The fourth kind of project has to do with *skills, habits, knowledge*. An upper-grade language class in a rural school is evidently greatly in need of training in written composition. The teacher decides that the difficulty is chiefly one of motivation. So the class, consisting of four girls and four boys, averaging about thirteen years of age, after much preliminary class discussion with the teacher, are given the task of issuing six numbers of a school paper, which is to consist of four pages, each 9"  $\times$  14". The class is to do all the work connected with the paper, even to deciding on the name, the form, and the character of the contents. The paper is issued every two weeks. Some funds are available — about eight dollars — and a serviceable hectograph is purchased. The class becomes enthusiastic. The copy is carefully prepared, and corrected over and over again. The pupils secure language skills during the months of December, January, and February which will be of practical value to them all of their lives, all by means of a social, habit-forming project.

**Arithmetical projects in the rural school.** It is not difficult to find many practical, worth-while projects in rural-school arithmetic, that is, activities involving problem solving which may be carried to completion in their natural setting. A few suggestions for such project work are made here for the rural teacher's consideration. Probably some of these

are not wholly and technically projects, in the strict sense of the term :

1. Make the measurements, using the resulting figures and the data which you may find in the catalogue of a mail-order house, to find out how much it would cost to give the walls and ceiling of your rural schoolhouse two coats of paint.
2. Draw the schoolhouse and the school yard to scale, and then compute the area of the yard in fractions of an acre. Let individual pupils get results until there is practical agreement.
3. The net proceeds of the box social were \$35.00. The class may take catalogues of school-supply houses and make several lists of ways to spend the money for the benefit of the school.
4. Teacher and class may secure several copies of the booklet entitled *Postal Information*, and then make out and solve a series of problems involving varying parcel-post rates.
5. A series of practical problems based upon the heating and ventilating system can readily be made and solved, such as comparing the area of the fresh air inlet with the foul air outlet, and finding the air capacity of the room in cubic feet. Is the air space sufficient for the number of pupils? Each pupil should receive about 2500 cubic feet of fresh air per hour. Some of the patented systems will change the air every ten minutes. Compute the volume of air changed in one hour.
6. Find the total valuation of the school district and the amount of money the district must raise to run the school; then compute the rate, and find out how much John Smith will pay, if he is assessed at \$35,000.
7. Many problems can be made out in connection with the hot lunch. For example, the class can compute the cost of the various dishes for one month. If the school has no hot-lunch equipment let the class figure the cost of installing a good equipment.
8. The pupils can readily find the market prices for butter, hogs, hay, cheese, milk, eggs, coffee, beefsteak, shoes, clothing, and other articles. Making out a list and noting the changes from week to week is a good project. Then, using the prices for

data, all sorts of useful problems can be stated. A committee may keep a corrected list posted on the bulletin board.

9. Which would be the more profitable crop on a given piece of ground, corn or potatoes? Figure all the possible costs of production and then take average prices over a series of years.

10. Make out a year's budget for the rural school, indicating all sources of income and all items of outlay.

11. Make a diagram of the home farm showing the various fields, indicating what they were or are used for. The number of acres and the values of crops may be shown. Many problems can be formulated.

12. Make a complete inventory of all school property under the teacher's direction, giving approximate values of all fixed and movable equipment.

**Projects in agriculture and nature study.** 1. Collect weed seeds in vials and label the bottles. Use the collection as the means for teaching useful knowledge.

2. Select seed corn under the direction of a farmer.

3. Make a chart or poster showing the various kinds of dairy cows, getting the pictures from farm journals and elsewhere. Similar work may be done for hogs, poultry, horses, sheep, beef cattle. See Pickard's *Rural Education*.<sup>1</sup>

4. Make various kinds of booklets on leaves, weeds, birds, and wild animals. These booklets may contain outlines, pictures, colored diagrams, short descriptions. They should have neat, decorated covers, and be tastefully bound together. See Pickard's book on *Rural Education*.

5. Collect and arrange various kinds of bark, wood, rocks, seeds. Pupils will try to find material if they have a tangible objective to work towards.

6. Learn to identify twenty-five weeds in September, using the game or contest idea. Each pupil should bring all of the different kinds he finds from time to time.

<sup>1</sup> PICKARD, A. E. — *Rural Education*; Webb Publishing Company.

7. Test the milk of a certain cow for a week or a month. Each member of the class weighs the milk from one cow, night and morning, tests the milk with a Babcock tester, and computes the butter fat content.
8. Learn how to use the rag-doll seed-corn tester. This is a good practical project in the spring.
9. Raise a calf, a pig, a sheep, or a flock of turkeys.
10. Prepare an exhibit for the county fair.
11. Make a good bibliography of references on corn, potatoes, or weeds, using all books and bulletins available.
12. Test several samples of soil with litmus paper, and make a soil survey of the district.
13. Draw the parts of a typical insect, and make a booklet on insects.
14. Make a special study of the fly, especially as a menace to health. Excellent material may be found in books and bulletins so that it will not be difficult for pupils to make attractive booklets.
15. Arrange excursions to study the silo (or other objects of interest and educational value in the district) including the kinds of silos, how filled, computing contents. Make a list of such possible excursions for the school year.

The above is merely a suggestive list. No person can do it all. Let each teacher select the kinds of work which are most feasible in her school. It is unquestionably true that the successful teaching of agriculture demands the use of the problem-project procedure. Teaching agriculture without studying real things is a waste of time and energy.

**The hot lunch as a project.** The best way to conduct the hot lunch in a rural school is to make it a social, coöperative project for the immediate school community. All the preliminary steps connected with the starting of the hot lunch can also be made a school or a class project. In carrying out the details of the hot lunch procedure day after day there is rich opportunity for training pupils in many of the most

important qualities of good citizenship. It is easily possible to divide the work so that practically every child in the school will have something to do, at least sometime during a given week. In this connection, the student is referred to the chapter where the details of the hot-lunch idea are discussed. It should be noted that in the hot-lunch procedure we have a distinctly motivated activity. There is purposeful activity and there is the natural setting. Moreover, the work is carried to completion in the natural setting. There will be little difficulty in correlating the hot lunch work with arithmetic, hygiene, and geography.

**County-normal projects.** In every institution where rural teachers are trained the students must necessarily be engaged from time to time in carrying out projects connected with the regular work of the school, and there will also doubtless be many extracurricular projects. The following list is necessarily brief :

1. Getting ready for and then putting in three weeks of observation and practice in a rural school. This project includes a report upon the experience when the student returns. Part of the project also consists in keeping in touch with the regular, or associate, teacher during the year.
2. Planning, preparing, and carrying out a Halloween party or social to which guests are invited. The project includes planning all the games, the program, arranging for the refreshments, paying the bills, and doing everything else which is necessary to carry the project to successful completion.
3. Preparing and serving a dinner to the members of the county board and other county officers, once a year. This is a large undertaking, requiring the active services of at least twenty young women.
4. Making seat work material of different kinds to use in their own schools the year after graduation.
5. Serving on various standing committees, thus insuring

through coöperative activity the performing of many duties of direct help in promoting the welfare of the school.

6. Planning for and going on several excursions to many institutions and places, for a variety of reasons, during the year. A committee makes out a schedule after consultation with the principal, and takes care of the problem of transportation.

7. Getting out a thousand educational bulletins each month to rural teachers, rural-school-board members, and others. Envelopes are directed, and bulletins folded, placed in envelopes, and mailed. It is a useful social project in which the county superintendent, the teachers, and many others are benefited.

8. Serving a cafeteria luncheon to rural teachers of the county who come to the county normal for conferences in December and March. This involves looking after all financial arrangements, making sure there is no loss on the enterprise, and solving the problem of preparing and serving the food.

9. Taking care of the bulletin case where several thousands of various bulletins on many subjects are systematically arranged, so that when one is needed quickly the student will find it readily in its compartment.

10. Putting on special programs, such as a Hiawatha dramatization, with proper settings and costumes. Sometimes it is a Christmas play such as Tolstoy's "Where Love Is, God Is." The students prepare the stage effects and the costumes. They also take the initiative in rehearsals and in making suggestions for improving the general effect.

**Problem — project — interest — motivation.** These four terms are placed together here in order to suggest their mutual relationships and interdependence. The words are most significant in modern school practice, for they embody the aims and efforts of present-day thinkers to place the school work upon a more rational basis of reality and genuineness. It is unnecessary to discuss problems and projects further in this connection except to say that the project almost always involves the problem. Projects are made up

of a series of related problems. In considering both problems and projects it is evident that the point of view is that of the child rather than the subject matter. The best teachers always look upon subjects as means to ends. It is this viewpoint which gives meaning and value to the four terms of this topic. Interest is the oldest in method terminology. We are using problems and projects in present-day practice, partly because they are inherently interesting, and partly because they may bring about the highest type of personal development. The problem-project is naturally an interesting and well-motivated procedure. In actual school work these four principles overlap and mutually reinforce each other continually. If the rural teacher will master them and make them the underlying principles of all her work, she will find that she is doing genuine dynamic teaching. Freeland<sup>1</sup> says that "Interest is an attitude of mind toward a course of action or an object in which one is impelled from within to carry on the action, or to give attention to, examine, handle, approach, or in other ways act toward the object; and in which the satisfaction of this impulse gives pleasure."

**When is work motivated?** Wilson and Wilson say in their book, *The Motivation of School Work*,<sup>2</sup> "The child's work is motivated whenever he sees a real use in it — whenever it satisfies some need he feels, provides some value he wants, supplies some control he wishes to possess, secures some desired end, or helps him to attain any definite goal." Thomas in his text, *Training for Effective Study*<sup>3</sup> considers

<sup>1</sup> FREELAND, F. E. — *Modern Elementary School Practice*; The Macmillan Company.

<sup>2</sup> WILSON, H. B., AND WILSON, G. M. — *The Motivation of School Work*; The Houghton Mifflin Company.

<sup>3</sup> THOMAS, F. W. — *Training for Effective Study*; The Houghton Mifflin Company.

motivation as the "harnessing of interest," and states further, that "it is the employment of interest to secure the willing, intelligent accomplishment of specific tasks." School work is motivated when pupils work because they want to and not because the teacher asks them to do something. It is no doubt true that not all of the work of the school can be thus motivated and that children must be trained to do disagreeable tasks which they would rather not do. One of the great functions of the school is to teach and train boys and girls to do the work that needs to be done, even though it is not always pleasant and agreeable. Nevertheless, we need to realize that the best work of the world is really not done under compulsion, but rather from an inner impulse born of genuine interest, either immediate or remote. We cannot think of men like Edison, or Lloyd George, or Henry Ford, as being driven to their tasks. They work because they love to work, because they have great purposes to realize and goals to reach. Life is tremendously interesting to such people because it is full of intensely attractive problems. Their work has the highest type of motivation. In school work every effort should be made to have pupils ask questions, to sense problems, to realize personal needs, to see reasons for doing things. The work of the school should be based on the needs of children and appeal to and utilize their experiences, if it is to be well-motivated, interesting, and therefore successful.

**Seven natural interests.** In the *World Book*, under the title "Teaching, Motivation of," written by H. B. Wilson, eleven natural tendencies or interests of children are considered as the basis for suitable, motivated work. Seven of these are here singled out by the author for brief discussion and illustration, using, however, different titles and a different development.

*Test*

1. *Overcoming difficulties.* As has already been intimated, this appeal should often be made to children. There is a natural, pugnacious instinct which prompts all of us not to be downed by hard circumstances. It is right and proper that John should be encouraged to fight out his battles, to persevere in solving his problems. Every good teacher makes use of this instinctive desire not to be beaten in accomplishing personal purposes.

2. *Making collections.* We all make collections of all sorts of things because we love to see and handle the objects of our desire. Some enjoy collecting, handling, and reading books. A book is to them something very desirable. With others it may be furniture, clothing, money, jewelry, anything which is desired and personally valued. The list is a long one. In school work children like to make and to keep things which belong to them. This instinctive desire lies at the basis of the making of booklets, and collecting leaves and pictures. It is a useful form of motivation which can often be utilized in school work.

3. *Entertaining guests.* The teacher plans a Mothers' Meeting and makes it a social, coöperative enterprise for all the school. She is sure to get some hearty responses, for the children naturally wish to make a good showing. Read the discussion of Mothers' Meetings in another chapter, and consider how you can make this a well-motivated afternoon, from the regular class work to the serving of the refreshments. One can think of other illustrations of this point without much difficulty.

4. *Accumulation of property.* Children usually work better if they get paid for it, but of course this is a motive which must not be overworked. Children cannot always be hired to do their work or to be good. Teachers cannot pay children to get them to behave. Prizes and artificial rewards are a dangerous sort of motivating agency. However, if Mary has the prospect of earning \$5.00 for her essay on "The Sanitation of a Country Home" which is to be published in the local paper, such an incentive seems a very proper one. If all the pupils can earn money through a box social or otherwise to buy a picture for the school, there is a high type of social motive which is altogether wholesome.

5. *Working for honors.* Sometimes it is a declamatory contest, or a debate with another rural school, or a spelling match in the school or between schools; or again it is an effort to have the school get the large banner for the year, indicating that this rural school is the best in the county in penmanship, arithmetic, and spelling. Such efforts and such motivation are indeed commendable. In this work there is the stimulation of group interest and the pride which prompts all to work hard for the good name of the school. Whenever activities can be socialized the benefits and the motivation are always more certain and perhaps more justifiable.

6. *The urge to build.* Children like to make things of wood, paper, or other material. The desire to build or construct is seen early in life before the child goes to school. In an up-to-date rural school a large variety of materials are now furnished for construction work, particularly for educative seat work. Almost all children are happy and interested in this project work. So we have salt-and-flour maps, sewing, making bird houses, weaving baskets, and making paper-pulp maps. There is no end to this type of work. If a pupil, a class, or the whole school can make something for the school, such as window ventilators, a magazine rack, or a shelf for the cyclopedias, there will be an excellent socially motivated activity.

7. *Motivation of games.* It is now quite common to make use of the play instinct in teaching, so that we now have games in spelling, language, reading, arithmetic, and other subjects. Teachers will experience no difficulty in securing games for motivated work from the various supply houses. An expert teacher employs the dramatic instinct to teach the powers and duties of the president's cabinet. Ten members of the class gather round the long reading table with the teacher at the head, impersonating the president. In the discussion which ensues, many of the functions of each department are clearly set forth. Thus playing the cabinet becomes a well motivated exercise, in contrast with the bare reciting of the various facts pertaining to the departments of the cabinet, from a textbook.

## REVIEW, TEST, AND PROBLEM EXERCISES

1. Supposing the young teacher is asked how she is getting along, how things are going, and she says everything is "just fine" — how would you interpret such an answer?
2. Indicate five life situations in which habit would help you out, and five other situations where you must think in order to extricate yourself.
3. Write a list of your personal experiences which will enable you to interpret the work in the agriculture class. Suppose that you have only a very short list — how will it affect your teaching?
4. Write a list of personal experiences which will help you to work out the hot-lunch project successfully.
5. State and discuss seven advantages of the problem method. Arrange these points in the order of their importance.
6. Formulate five problems which you will need to solve during your first week of teaching, and then tell specifically how you will solve them.
7. (a) Make out five good original problem questions in geography.  
(b) Make out five good original problem questions in history.
8. What do you understand by *natural setting*? Give three natural settings in teaching agriculture, three in teaching household arts, and three in teaching arithmetic.
9. Criticize the arithmetic projects given on pages 448 and 449, and see if you can substitute some better ones for any five of those given.

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## CHAPTER XXII

### SOME FUNDAMENTALS OF THE SO-CALLED RECITATION

**Hearing lessons vs. teaching.** It is no doubt true that the average rural teacher, even at the present time, is spending a good deal, perhaps most, of her time in hearing pupils recite book lessons. The lesson is usually assigned by pages or topics and the pupil is given but little help in the mastery of the printed page. The idea of problem making and problem solving, or even of thinking aside from its relation to specific personal problems, does not enter the mind of this average rural teacher to-day. To be sure, there are now many teachers, and the number is constantly increasing, who see in the recitation procedure exceptional opportunities for pupil development. But, for the most part, we still have a question-and-answer process in which the chief activity is purely a memory response of undigested textbook facts.

What is needed most of all to-day is intelligent procedure, based upon modern research and the result of study, thought, and analysis on the part of the teacher. Until such a time comes in the life of a teacher it can hardly be true that she is really teaching. She is only a hearer of book lessons — oftentimes a sorry spectacle of mechanical, unthinking routine, devoid of all valuable educational results. In this connection, it should be made plain that there is really no one universal method which a teacher can learn that will serve once for all. Different subjects, as arithmetic, agriculture, spelling, require different methods, and the method, moreover, needs to be adapted to the type of subject matter, to the

capability of the taught, and to the pupil's stage of development. There is great need for unification of method and the establishment of teaching landmarks, so to speak.

**The teacher's vital opportunity.** In an average rural school there are probably about twenty-five so-called recitation periods during the day, most of them of ten or fifteen minutes duration. During the recitation period the teacher calls the pupils to the recitation seats, apart from the rest of the school, and there she does the best she knows how to teach her class. What takes place during such a period will be determined by the teacher's ideals and her standards of education and of procedure. If she has never studied the real meaning of teaching and has never had a skillful teacher herself, she will be quite likely to confine herself to textbook material and to expect pupils to memorize the book in greater or less degree. During the recitation teacher and pupils should come into close mental contact. Then is the time when the teacher has opportunity to impress her personality upon that of the pupil. The recitation period is a golden opportunity to instruct, to train, to inspire. The child's mental horizon can be widened out, his imagination can be awakened, his thinking powers developed, his feelings aroused and cultivated, his will directed, and his whole life lifted to a higher level. To do this successfully the teacher must have clear and correct objectives, she must know what is right, and she must have skill in the technique of teaching.

**Meaning of recitation.** The root meaning of recitation calls attention merely to the repeating of what has once been said or cited. Literally, *recite* means to call or cite again. That is, the original, etymological meaning has reference to the saying again of what has once been said or given to the pupil. This idea does not necessarily involve the notion of meanings or of thought, at all. The "saying again" is

merely the repetition of a purely verbal memory product — a pretty dreary business, we must admit. Our present conception of the recitation embraces a variety of aims and of activities, such as testing to discover the pupil's knowledge, power, or skill, verifying and correcting the pupil's ideas, removing wrong notions, furnishing collateral material, drilling to fix facts in mind, stimulating the pupil to renewed efforts, cultivating power and skill in the use of English, helping pupils to study by themselves, training in thinking or problem solving, and furnishing socializing opportunities. It can readily be seen that this involves much more, very much more, than hearing book lessons.

In one sense the recitation is but a period of time; but a teacher never sees her rich opportunity until she thinks of the recitation in terms of pupil activity, growth, and development. The real recitation is a means for promoting the natural unfoldment of the child's powers. In this sense it is an exercise during which pupils present the results of their study or investigation. It is a period for general discussion, for the presentation of ideas found in many sources, and for the correction of wrong ideas. The recitation procedure, in this new sense, emphasizes subject matter; but it is not to be thought of as a mechanical memory process, in any case. In this modern sense a recitation lesson or exercise may not involve drills at all. In the commoner acceptance of the term, perhaps, we think of the recitation as a class exercise in which the teacher may teach, test, and drill. To *teach*, in the widest acceptance of the term, is to bring about any sort of activity or pupil response which will *change* the child's life and personality.

**The study recitation.** Every rural teacher should know and appreciate the possibilities of the study recitation. By this term is meant an exercise or a special use of the recitation

period, during which teacher and pupils work together upon some subject matter, problem, or project. During a study recitation the teacher has opportunity for supervised group study. When the test or the drill exercise does not go well the teacher should stop her efforts in that direction and actually work over and work out the material with the children. Both teacher and pupils should ask questions and answer questions. There should be a general give-and-take, with an effort to understand, to organize, to gather data for the solving of a problem, and so on. Other books may be used, outlines may be made out, problem-questions formulated, pupils taught how to take notes, and the like. If teachers would spend more time in a supervised study-recitation the testing exercise would have more meaning and would go forward with greater effectiveness and success. There is too much of pumping from dry wells, too often a quite futile attempt to squeeze blood out of a turnip. More real teaching and more supervised study would greatly increase the value of the recitation period. When pupils don't know the only thing to do is to teach, not attempt merely to test.

**Recitation objectives.** When the class exercise or the recitation procedure of a rural school is definitely visualized in all its details and variations it seems quite evident that several aims or objectives are clearly possible. However, all objectives may be summed up in the terms *knowledge, ideals, and skills*. In the writings of Emerson E. White<sup>1</sup> of a generation ago we find knowledge, power, and skill stressed over and over again; but now we know that ideals, attitudes, and interests are of equal significance in the life of the child. Moreover, we have come to see clearly that skill in general

<sup>1</sup> WHITE, E. E.—*Elements of Pedagogy, School Management, and Art of Teaching*; American Book Company.

is an abstract impossibility. Skills are concrete, special, particular, and realizable only through specific procedures or drill exercises. Every good recitation stresses the importance of accuracy in the acquisition of knowledge. Pupils should be trained to learn correctly and as fully as their stage of progress will permit. When a child develops respect for a fact and really desires to know the truth, it is a red-letter day in his progress on the road to achievement.

Children should not be permitted to guess as a general thing, at least not in fields where they can and should know. They either know or they don't know; if they know accurately and well, they can tell, for knowledge presupposes the words in which to clothe the ideas. As one writer well says, "Ideas are born with their skins on." Early in their school career and all through it pupils should have daily training in the formation of clear-cut images, and in the gathering of data from which to draw definite conclusions. If a teacher teaches her pupils to see things as they are and to get thought from the printed page, she is doing much for them. Many pupils "go through" both the common school and the high school without gaining the ability to get the meanings which a sentence or a paragraph should yield. This is knowledge; but how much more important is the development of ideals, attitudes, habits, interests, tastes, likes, and dislikes, both in making a living and in making a life. The recitation is one opportunity to give the child's mind a set in the right direction, perhaps for life.

**Recitation processes.** During a recitation period, as it is generally understood in the American rural school, the teacher can do three things so far as the actual teaching is concerned. She can teach, she can drill, and she can test. Sometimes these are called teaching processes, and sometimes they are thought of as the aims of the recitation. In

modern pedagogical phraseology, we use the term *types of teaching*; but practically all of the ten usual types may be grouped under these three heads. The telling or lecture exercise or lesson, the object lesson, the development lesson, both inductive and deductive, the study lesson, whether supervised or unsupervised, the assignment lesson, and the review lesson, may all be thought of as teaching exercises, although the end is often much more than the mere acquisition of knowledge. Socializing exercises and appreciation lessons are also, in the broad sense, teaching procedures, though it can readily be seen that the knowledge aim, as such, is not the uppermost idea. Teaching, or instruction, has a much more comprehensive purpose than the mere imparting of knowledge.

As a result of genuine teaching the child is developed in all phases of his mental, moral, and spiritual nature. It is not simply a question of intellectual training, that is, the development of the knowing powers; the feelings are also aroused and developed by good teaching; the will is formed; attitudes, habits, ideals, and interests are shaped; and the child is equipped to solve problems of human relationships. In recent years much has been made of socializing activities and procedures, for it is now seen that the pupil must be prepared for social efficiency. Appreciation lessons are becoming increasingly common, and a technique for such lessons is gradually being developed. All habit-forming exercises and many review exercises are in the nature of drill. The recitation lesson, involving the use of the question-and-answer method, and the review lesson, may be classed under the head of testing. Thus it is seen that the procedures of the recitation comprise teaching, drilling, and testing, although modern theory and practice demands a more minute analysis of these processes.

**Subject matter and development.** Many teachers look upon subject matter as a static, fixed quantity, not subject to change. A thoughtful teacher will understand that subject matter has come into the schools because of the needs of society, and that changes and growth are always going on in the social organism. Society is not fixed, but is in a constant state of flux. "New occasions teach new duties," and, as mankind makes new discoveries and new advances in civilization, so the subject matter for the school changes. New topics are constantly being introduced and old topics dropped out. We have only to think of our modern textbooks and to compare them with those used a generation ago to appreciate the fact that great changes have been made in subject matter. We have changed the content in geography, in arithmetic, in civics, and in many other subjects. If the teacher will look upon subject matter from the dynamic point of view rather than from the static, she will think differently about her work and will render the pupils a greater service. Worth-while subject matter is not dead subject matter, for it functions when put to some profitable use. It possesses the energy which results in effective action. Static subject matter is dead, inert, useless; much of this kind of material is still being taught in schools to-day.

Subject matter in the rural school should serve a useful purpose, that is, be practical and relate to the child's environment and to his future place in society. Subject matter should serve the child and promote his personal development so that he will increase in personal power — power to understand, to work, to enjoy, to serve, and to be useful in the world. No rural teacher is justified in teaching a topic just because it is in the course of study; although, to be sure, she may be legally required to adhere to a prescribed course. She should constantly be thinking of the materials she uses

in terms of the child's development. Some kinds of subject matter are much more useful than other kinds of subject matter. Knowledge of his own state is usually more useful geographic knowledge to a child than knowledge of Africa, for example. Ability to write a good paragraph is a more valuable accomplishment than ability to parse. Ability to handle fractions and denominate numbers has a more intimate bearing on life than ability to extract square roots. The habits of close observation and of attention, which result from good teaching, are worth more than the facts themselves stored in the mind, particularly if these facts are unrelated, unorganized, and not used in solving practical problems.

**Need of mental diagnosis.** One of the large problems of the teacher is that of ascertaining the content of the child's mind ; this means not only the child's stock of ideas but also his mental attitudes, his ways of thinking, his ideals, his likes and dislikes. Every good physician is a good diagnostician. He does not treat symptoms merely ; he ascertains causes which lie beneath the surface. In school work it is of the greatest importance that the teacher know her pupils. To-day we are making increasing use of diagnostic tests. Emerson E. White used to say that the test is the eye of teaching. At the present time tests have been devised which are more effective than the old-time tests, in that they discover not only the content of ideas, but also habits of thought.

In all successful instruction the teacher must proceed from the known to the related unknown. By means of tentative questions the teacher may find out what the child knows, and from that he can take his departure in developing a new body of knowledge. It should not be forgotten that no two pupils possess the same stock of ideas because no two children

have by any possibility had exactly the same experiences. When a teacher begins a new topic, such as long division, for example, she should first of all make sure that there is an adequate basis for the new work. Long division, with its several gradations or steps of difficulties, is a good illustration. If the reader will make a graduated scale of examples in long division, he will appreciate the need for diagnostic procedure. Arrange a series of a dozen or more examples in order of difficulty. The *Osburn Inventory Tests*<sup>1</sup> in arithmetic do this very thing, so that by their use a teacher can make a rather accurate diagnosis of each child's weaknesses.

**Significant aims.** If we think of the recitation as a class procedure involving a variety of activities, we shall discover several legitimate aims which the teacher should keep in mind. Among generally accepted objectives a few need special emphasis. In every worth-while recitation pupils are always instructed and trained (1) in the art of *expression*, particularly the expression of thought in the form of speech. Pupils will never learn to talk well unless they talk much under the stimulation and guidance of clear, correct standards. Pupils will not learn to talk by listening to the teacher, or by answering scrappy questions in fragmentary fashion. There must be connected speech under wise and kindly criticism, with a great deal of attentive repetition of correct forms.

(2) Another aim of a good recitation is that of *silent reading*. The teacher should shape the procedure in such a way that pupils are asked repeatedly to examine the printed page with a distinct purpose in mind, to answer a specific question, or to solve a particular problem.<sup>2</sup> The ability to get the meaning of a sentence or paragraph is of such funda-

<sup>1</sup> The Public School Publishing Company, Bloomington, Ill.

<sup>2</sup> See Chapter XXIV on The Reading Problem.

mental and vital significance in all the work of the school that the recitation period should frequently offer opportunity for training in silent reading.

(3) A third aim is summed up in the word *initiative*. The old-time recitation developed very little initiative. With the new social purpose of the school in mind, no teacher will fail to see the need for training pupils in this quality of personality. The members of the class should ask questions and suggest problems.<sup>1</sup> Suffice to say here, that pupils will never develop initiative if the teacher continually directs all the activities. Power of leadership comes only through training in leadership. The child needs to be given a chance repeatedly to choose for himself, in some measure to map out his own program; otherwise he becomes increasingly dependent.

(4) Still another objective has to do with the *use of books*. The recitation period is the time to teach children how to handle books, how to run down topics, using the table of contents, the index, and appendices. A child, in order to get book power, must learn to feel at home with books. A book must be looked upon as a friend ready to render assistance, providing it is accorded understanding and skillful treatment. Skill in the use of books is one of the many which the school should develop, and it is a distinct objective of the recitation.

**The art of questioning.** Every good teacher is able to talk clearly and to the point; she is also trained to ask good questions. One writer says that a question is a demand for thinking or the results of thinking. Doctor Betts<sup>2</sup> states that "good questioning stimulates thought, leads to inquiry,

<sup>1</sup> McMURRY, F. M.—*How to Study and Teaching How to Study*; Houghton Mifflin Company.

<sup>2</sup> BETTS, G. H.—*The Recitation*; Houghton Mifflin Company.

and results in understanding and mastery." "Poor questioning leaves the mental powers unawakened, cripples thought, and results in inefficiency and lack of mastery."

A good question demands thinking, and in doing this it brings attention to bear upon the problem under consideration. Skillful questioning breaks up subject matter into logical steps, and serves as a stimulus to the pupil. A clear, sharp, pointed question stings a child's mind into action.

The teacher needs to question pupils in order to find out both what they know and what they don't know. The ascertained known will prove the point of departure for teaching something new. If pupils have wrong notions these can be corrected when discovered by questioning. Proper questions discover how the pupil thinks and where the teacher has failed to stimulate and guide thinking in his teaching. Teacher and class coöperate in a well-conducted question-and-answer procedure; good questions secure such coöperation.

Salisbury<sup>1</sup> distinguishes three kinds of questions — (a) tentative, or preliminary; (b) instructive, or Socratic; (c) testing, or examination. Tentative questions are framed to ascertain the child's present knowledge as a preliminary to the presentation of new material. It is unwise to assume either that a pupil knows or that he doesn't know. The best way is to find out by good questioning exactly what he knows.

Socrates, the great Greek philosopher and teacher, was skillful in the use of questions as a means of teaching the youth of Athens. A good teacher uses instructive questions mostly, as they both stimulate and guide the pupil in his quest for knowledge. They should be arranged in logical order, arouse interest, and require and provoke thought.

<sup>1</sup> SALISBURY, A. — *School Management*; Row, Peterson and Co.

Testing or examination questions may be both oral and written and may be given at regular or irregular intervals. The old examination question was too general and too uncertain as a testing instrument. The new forms of examination promise something more scientific and accurate. Oral test questions are necessarily used by the good teacher a great deal. They are usually, however, too detailed, calling largely for scrappy, memory answers. This is not necessary; it is not productive of educational results. Testing questions should call not only for the end-product of mental activity, but for the mental process itself with good expression.

A good question has a definite aim, is specific, adapted to its purpose, briefly put, not wordy, clear in form, and requiring precise, particular response. A poor question is usually one that is complicated, hard to understand because couched in vague, uncertain language. Having made her question clear and to the point, the teacher should ask it only once, as a rule. Repeating questions is a bad practice that seldom has justification.

Lawyers ask leading questions because they wish to bring out certain facts or information. The teacher is justified in asking leading questions to provoke thinking, but such questions are bad if they merely suggest the answer in mechanical fashion. *Yes-and-no* answers are sometimes good, sometimes bad, depending on the teacher's purpose. Answers in complete statements may be a waste of time, if teacher and pupils are trying to push on to the solution of a problem or to the development of a unit of subject matter. *Yes* and *no* will serve to carry on the discussion, and are properly in order in such a case.

Modern textbooks contain many useful study questions which are often in the nature of problems. Teacher and

pupils should make intelligent use of these. The use of such study questions does not preclude the framing and answering of many others, however, on the part of both teacher and class. Many of the older book questions were mechanical and should be avoided.

Pupils should be trained to answer questions thoughtfully and courteously. Proper response on the pupil's part is as much of an art as the questioning itself; it is a matter for daily attention and training. Children should be required to stand straight on both feet, and to speak in a clear, conversational tone, neither too loud nor too low. As a rule pupils should not be permitted to guess, unless all understand that the guessing is legitimate in the given situation. If pupils answer in muddled, indistinct, incoherent fashion, it is the teacher's duty to secure something better. The manner of answering is often as important as the substance of the answer. There is a great deal of irrelevant, foolish, inaccurate answering in many schools by pupils who have failed to master the subject matter, possibly because the teacher has not taught them how to study.

Teachers need to study the art of receiving answers properly. If an answer is wrong the pupil may be led to correct it. The entire exercise should be a pleasant conversation carried on in courteous tones and language. If one pupil cannot answer another may be called upon, unless the answer can be secured by means of a development exercise. The waving of hands and all show of impatience should be discouraged. The attitude of members of the class toward the teacher and toward one another is an important matter. If pupils answer thoughtlessly and carelessly, if they are evidently unprepared, then the teacher must teach and train. If a child answers honestly, though incorrectly, the teacher's duty is to show him his error, possibly by further questions,

possibly by direct telling. A wrong answer is the basis for further teaching; before the truth is brought to the surface several questions may be needed. The pupil may be asked to try repeatedly, to make an effort to recall images, and to think. It is a waste of time and effort to repeat questions or answers in mechanical fashion as a matter of habit; neither teacher nor pupils should fall into this senseless practice.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. In what ways does the recitation period offer the teacher a genuine opportunity? What is a rural teacher's constant temptation when the class is called out to recite? How can she overcome this daily temptation?
2. Indicate seven different lines of learning activities which can be carried out in an upper-grade arithmetic class during the recitation period.
3. What is the distinction in meaning and practice between the commonly accepted recitation and the recitation lesson? Why is the term recitation a misnomer and likely to be misleading?
4. Why is a study recitation often much more valuable than the common testing recitation? Make a list of as many activities as you can think of which may find a place in a study recitation.
5. Should every recitation be an exercise in English? Why?
6. What is meant by "pumping from dry wells"? What can one do about it?
7. Why are attitudes, ideals, habits, abilities, interests of so much importance in any person's life? Show the futility of mere knowledge in such a subject as physiology.
8. Explain this sentence: "The recitation is at least one opportunity to give the child's mind a *set* for life."
9. Write a list of five useful items of subject matter in geography, and a list of five facts which will make but little difference if they are not taught at all. Draw both lists from textual subject matter. Give your full reasons for so listing these items.
10. Just why may one consider the geography and history of one's own state more valuable and important subject matter than the geography and history of Africa?
11. What is the great advantage of a minimum list of words to teach

pupils to spell? How many words do you think should be in that list for an eighth grade? What facts determine such a list?

12. Make out a list of twenty examples in long division, with the easiest one first, and the others graded in order of increase of difficulty.

13. Why should all teaching, so far as practicable, be related to the child's experience and involve new experiences through actual contact with our social and economic life? Why will it pay large dividends, for example, to take one's school to the county seat? Particularize and illustrate.

## CHAPTER XXIII

### TEACHING THE ART OF STUDY

**What study means.** In recent years the term *study* has come to have a much wider and more definite meaning than formerly. It is now clearly understood that study implies vastly more than merely reading and memorizing the text. Usually study has reference to the acquisition of knowledge from the printed page, but teachers should also understand that study often involves objective activities of various kinds in which rocks, leaves, flowers, corn, and other things in the world itself are examined and studied. Pupils may study through directed observation as in excursions or by consulting various people, such as a farmer relative to the selection of seed corn, to secure their knowledge. If one were to give a fairly comprehensive characterization of study, it would probably be correct to say that study is *thinking*. The term "thinking" is used here in the general sense to mean much that is involved in the learning process, including various forms of imagery, the forming of the general notion, and reasoning, both inductive and deductive. Worth-while study includes the formulation of problems and the gathering of data for their solution. Pupils often need to seek facts so as to be able to prove a proposition, and this is one element in study.

In genuine study pupils will be taught to challenge the value and worth of textbook statements and of the statements of members of the class and others. Many times the class will need to arrange the statements of the text in the order of their importance. Making logical outlines to show

such subordination of material is a useful form of study. "Study is the application of the mind to books, or to any subject or object, in order to acquire knowledge and to develop the mental powers. Study is earnest and reasoned effort involving more or less of meditation and mental absorption."<sup>1</sup> Study, in its highest and best sense, consists in bringing the whole mind to bear upon the accomplishment of a distinct purpose, which is in the nature of a problem of immediate personal interest. True study results in the acquisition of definite knowledge, the development of skill, the forming of ideals, habits, attitudes, interests, abilities — in short, the enlargement of personality.

**Significance of study.** It is practically impossible to overestimate the value of study to a pupil or the importance of forming right habits of study. To be able to study effectively is an infinitely greater practical power in life than the ability to recite subject matter which has been mechanically memorized from a textbook. In the average rural school the teacher is usually a hearer of book lessons. If half the time now spent on the testing recitation could be used in supervised study, particularly during a study-recitation exercise, the pupils would profit greatly by the shift of emphasis. If a pupil learns how genuinely to study while in the eight grades, he may readily become a life-long student, and his subsequent career in high school and college is much more likely to be both pleasant and profitable. On the other hand, many a child has taken a distaste for all knowledge and learning because his teacher did not appreciate the importance of study or know how to teach right methods of study. A young person's mind often becomes so inundated with the ideas of other people, through books and from other sources,

<sup>1</sup> *Secondary-School Dictionary* — American Book Company.

that he loses the power, apparently, of using his own ideas. He thus becomes the victim of other people's ideas. If the art of study is properly taught, the pupil will learn to evaluate the ideas of others, to think independently for himself, to achieve his own ends.

*Study*

**Study in the rural school.** In the average rural school the work of study is usually neglected because the teacher does not know its importance or how to train pupils in good habits of study. Much of the pupil's time is wasted in gazing at the page, in listless, purposeless reading, or possibly in mischief. Some teachers tell even little first grade children to go to their seats and study their lessons. When you think of it, what a ridiculous direction! How can small pupils study a reading lesson? What would such study be like? Small pupils cannot do successful individual work. Their study needs to be supervised; carefully directed group work with small children is the best solution of the problem. Usually the smaller pupils in a rural school should either have profitable educational seat work or be out-of-doors playing. In the rural school the teacher need not and should not "hear recitations," one after the other, all day. She requires time between classes to supervise the work of individuals in all grades. It will often be time well-spent, if teacher and pupils will work together in a group exercise, where study, rather than recitation, predominates. Supervised dictionary study is very profitable; teacher and pupils may well study the spelling lesson together, also. Pupils in a rural school need much instruction and training in the art of mastering the printed page. Topics need to be broken up and study questions made out. Such work may very profitably be done during a study-recitation. Altogether too much time is spent on testing, particularly through the use of the question-and-answer procedure.

**Right conditions for study.** In many rural schools physical conditions for successful study are far from satisfactory. The room is frequently hot and stuffy, and lighting conditions are often unfavorable. The temperature should be kept between sixty-five and sixty-eight degrees Fahrenheit; the air should be changed frequently. If there is no ventilating system, the room should be thoroughly aired out every hour, especially if there are many pupils. Single desks are greatly to be preferred, of course. Pupils should be taught to get all their books and materials ready before they begin to study. Pencils should be sharpened and pen and ink should be at hand so that the study time will not be interrupted. Many a country school pupil cannot study successfully because he is suffering from some physical handicap, such as defective eyesight, defective teeth, adenoids, or obstructed nasal breathing. The pupil must be at ease physically, and external causes for disturbance and distraction should be reduced to the minimum. In other words, conditions favorable to the concentration of the mind should prevail. Teacher and pupils should talk in low, conversational tones. The emotional tone of the school should be pleasing and gently stimulating, and the general spirit of the school should be wholesome, not irritating or distracting. The emotional element is highly important in all study.

**Objectives in study.** In study that is worthy of the name a variety of aims or goals may be set up for the guidance of teacher and pupils. Sometimes the purpose is to solve a problem in reading, arithmetic, geography, history, or other subject. If a pupil finds a satisfactory and therefore rational answer to the question, "Why has Chicago grown to be one of the largest cities in the world?" he will surely need to study. In answering the question he may need to use several different books. Study often consists in attentive repetition

to secure added skill or to help fix a habit. John may drill himself on *7 plus 8* or on how to spell *privilege*. The teacher must prepare the child for the drill work by suitable preliminary teaching and by the necessary supervision while it is going on. Study often consists in learning how to use a book to the best advantage — its table of contents, index, arrangement of topics, and appendices. Such study is best as a group exercise under the teacher's direct supervision, although the child can also be taught to work by himself. Sometimes profitable study may be the making of a list of references on a particular subject, using several books designated by the teacher. Topics like cotton, corn, Lincoln, irrigation, Revolutionary War, and Declaration of Independence may be "run down" in the library with great profit. Again, study may take the form of memorization, providing this form of study has been preceded by painstaking teaching. If there has been preliminary class work pupils may memorize certain definitions, stanzas of poetry, and other material by themselves, though much of such memorization work is better as supervised group study.

Another objective may be set up when pupils are taught and trained to select the most important statements in the lesson and to say why they are important. Such study involves writing, in which the pupil prepares for a class discussion. He will use his notes to make his contribution to a socialized conversation. It is often useful to have pupils pass judgment upon statements of the text or of any source material. Did Lincoln do right, in your judgment, when he issued the Emancipation Proclamation? What are your reasons for thinking as you do? Pupils will never develop power to judge unless they are practiced in giving judgments. An aim, or objective, which should often be consciously realized is that of applying the knowledge learned. Pupils in a

rural school may be taught a great deal of usable subject matter; just how this may be used in life is a vital subject for consideration. A great deal of study in every rural school should center around a carefully made-out list of problem-questions in history, geography, reading, or nature. In working out the answers to such questions the child should be taught that the single textbook often needs to be supplemented. Illustrations may be found in other sources and the child can be taught to study subjects, topics, and problems, not merely books.

**Basic principles of study.** Upper grade pupils in the rural school can be taught to understand the nature and use of three basic ideas in all successful study — *concentration*, *reflection*, and *organization*.<sup>1</sup>

(1) Of course concentration, the use of the power of attention, is a prime prerequisite to fruitful work of any sort; the modern idea is that free attention, born of interest and resulting from inherently attractive problem solving, is the most economical and most effective kind of mental activity. Older pupils can be shown the value of giving undivided attention to the work in hand, and the program of work should be so shaped that pupils will not form habits of dawdling. The teacher will find it profitable to call attention to the methods of work of such men as Edison, Coolidge, Tarkington, Arnold Bennett, and other leaders in human affairs. Systematic methods of work are distinctly worth while; a teacher can render boys and girls a most valuable service by training them in habits of undivided attention in all that they do.

(2) Reflection is another term for thinking. In all study in the upper grades pupils should know the value of getting

<sup>1</sup> SALISBURY, A. — *Theory of Teaching and Elementary Psychology*; Row, Peterson and Company, Chicago.

exact, specific meanings of various words or terms used in arithmetic, geography, physiology, or history. They will not have the necessary basic images or ideas for thinking unless they know exactly what such terms as the following mean and can illustrate them fully : *per cent, decimal, fraction, prime number, cape, estuary, delta, pylorus, villi, eustachian tube, majority, plurality, quorum, legume, butter fat, surface mulch.*

(3) The organization of what is learned, or what is to be learned, is always a prominent element in the work of a successful student and teacher. Organization implies a beginning, a middle, and an end. It means that the lesson will be set out in the form of outlines giving the main and the subordinate points, arranged systematically. This does not mean that the subject is necessarily to be taught in the logical order of the outline. Many subjects must be taught inductively, in psychological order ; but after the material has been learned through a development lesson the parts should be arranged in some systematic logical order.

**Vital study habits.** The study habits which a child forms in school will probably be of greater lifelong service to him than anything else the school can do for him. If he forms the very bad habit of accepting statements in a book in an unquestioning, uncritical attitude he may easily in adult life become the victim of various schemers and promoters who prey upon the unthinking, gullible public, upon people who are ignorant and who have not learned how to solve their own problems independently. Among the important habits of study which a child should acquire are the habits of gathering *sufficient* data for the solution of his problem ; of organizing the facts which have been secured so that they represent a definite, coördinated whole ; of properly evaluating evidence so that its usefulness for the purpose in mind

may be adequately fixed; of testing conclusions to see whether they are based upon sufficient evidence and whether they can be suitably verified by various methods of proof; of suspending judgment when the facts, data, or evidence in hand do not seem to be sufficient for making a deduction. A thoughtful teacher will be far more concerned to see that such valuable habits are formed, even if not so much subject matter is covered. It is a progressive day in a teacher's career when she realizes that subject matter is in this regard only means to an end. In study the subject matter is the material with which teacher and pupils work. It is to be used to realize educational objectives and not to be swallowed without thought or question.

**Study of things.** In geography, agriculture, nature study, physiology, and some other subjects, teacher and pupils will often find it best to get their knowledge at first hand. For example, in the lesson on the formation of soils, it will not be difficult to have pupils bring in various kinds of rocks such as sandstone, limestone, and granite, and to examine them to see how they differ. In study of this kind the teacher may help matters greatly if she will direct it by calling attention to important characteristics through the use of study questions. What is the color of each rock? Which seems to be hardest? Softest? Which do you think you could break up most easily? Of what is the sandstone made? If the limestone breaks up what sort of soil is made from it? How many kinds of elements can you see in the granite? Pupils may also bring to school various kinds of soil, such as sandy soil, clay soil, or rich black loam, for examination and study. The study of things should be almost a daily affair in any live, up-to-date school.

**Memorization — appreciation — thinking.** Which is worth more — to have Mary memorize "October's Bright

Blue Weather" (often in a more or less mechanical fashion) or to have her understand it and appreciate the beauty of it? Of course there is only one answer. And should not memorization be a by-product of the thinking and appreciation, at least for the most part? If the child has clear, definite images of the goldenrod, the fringed gentian, which closes up its blue eyes at night, the brook, the bumble-bee, and all the rest, and if there is appreciative reading on the teacher's part, together with both conscious and unconscious imitation on the part of the child, will not the poet's message get into the heart and the life of the child more certainly than through a mere memorization of words? Furthermore, how much time has a teacher for testing pupils in a class exercise as to whether they can repeat the words of a poem or not? Wouldn't it be much better to use the class period for an appreciation lesson, and then do the testing in some incidental way, perhaps outside of the class period? Unquestionably children should store in mind many beautiful poetic selections. In the case of the poem mentioned one beautiful stanza, perhaps selected by the pupil himself and learned with genuine appreciation, would mean much more to him in after years than the formal, routine memorizing of all the words. Study poetry *with* the pupils much more, and strive to reduce unthinking memorization of mere words to the zero point.

**The problem and motivated study.** Study cannot be discussed without some consideration of the problem idea, for study is thinking, and the need for thinking arises when there is a problem requiring solution. Life is made up of problems, as has been pointed out in Chapter XXI; when anyone has a personal problem the solution of which is a vital matter for the individual, there is the natural setting for the highest type of motivation and study. Study carried for-

ward under the stimulus of a personally interesting and significant problem is the most fruitful of all study. Whenever life presents new conditions which must be faced and reckoned with, the individual must depart from the beaten path of habitual action, and a new course of procedure may be mapped out. This requires thinking.

**Outlines and questions.** In order to illustrate the use and value of outlines and study questions, let us take a geography lesson for pupils in the fifth or sixth grade. Many times these two grades are combined into one class in the rural school. Many books give useful study questions, and the teacher should teach and train the pupils to use these questions. Such instruction should be given during a study-recitation period. The following outline and questions are based upon a lesson in a well-known first book in geography:<sup>1</sup>

The general subject of the lesson is "How Rocks are Broken up to Form Soil." — The first sentence, a paragraph, gives the general theme: "There are several ways in which rocks are broken up to form soil." Then these different ways are discussed as indicated in this list of topics.

- (1) Effect of heating and cooling
- (2) Effect of water on sandstone
- (3) Effect of water freezing in rocks
- (4) Effect of growing roots
- (5) Rock covered with soil
  - (a) As seen in cellar or hillside
  - (b) Variations of different layers
- (6) Small stones moved by stream
  - (a) Effect of rubbing together
  - (b) Effect of a flood
  - (c) Breaking up of stones
- (7) Why stones are smooth and round

<sup>1</sup> From BRIGHAM AND MCFARLANE — *Essentials of Geography — First Book*, p. 10; copyright, by arrangement with American Book Company, Publishers.

- (8) Fine particles worn off
  - (a) Carried away by streams
  - (b) Deposited in still water

At the close of the discussion, which takes up about a page, there is a summary as follows: "Soil is formed chiefly from broken rock. Rocks may be broken by quick changes of temperature, by the dissolving of natural cement, by water freezing in them, by the growth of the roots of plants, and by the bumping together of stones in the moving water of streams."

One of the elements in study is the making of such summaries, and pupils should be practiced daily in this art of getting the meat out of the discussion.

Study questions based upon the lesson, to be used by pupils in study at their seats, might be as follows: (1) What is the general subject of the lesson? (2) Is this a good title? Name another one. (3) What is the first way mentioned and where can you find a good illustration of it? (4) What happens when the cement is dissolved? What dissolves the cement? (5) What happens when water gets into rocks? (6) How can you show that rocks will take up water? (7) What is the effect of growing roots? Did you ever see a case of this kind? Where? (8) Have you seen different layers of fine and coarse rock in a hill side? What does this prove? (9) How can moving stones make soil? (10) How can you show this? (11) Bring a round stone to school. What made it round? (12) Be able to give the summary when you come to class. How many ways are mentioned?

**Study recitation illustrated.** The particular subject in the agriculture class which seemed to be causing difficulty was *Weeds*.<sup>1</sup> It was perhaps not so much a difficulty in understanding the statements of the text, for they were quite clear

<sup>1</sup> UPHAM, A. A., AND SCHMIDT, G. A.—*An Introduction to Agriculture*; D. Appleton and Company, New York.

and definite. The problem was one of organization and presentation, mainly. The teacher had been asking scrappy questions in miscellaneous order and the pupils in the class had responded in fragments of statements. So this teacher, who had recently been to a meeting where the study recitation was discussed, and who had also been reading up on the subject, resolved to stop the testing recitation procedure and to *study weeds with the children and with the books open.*

The lesson came in the month of September and the six members of the "A" class — Mary, Jane, Alice, George, Henry, and John — had brought to school various weeds, including ragweed, quack grass, Canada thistle, burdock, wild parsnip, plantain, yellow dock, purslane, and prickly lettuce. These weeds were in sight and available for study, along with the book. There were six topics in the text, and the teacher asked to have John name the different topics, which he did. They were as follows: What a Weed Is — Why Weeds Are Enemies — Classes of Weeds — Annuals, and How to Kill Them — Biennials, and How to Kill Them — Perennials, and How to Kill Them. John was asked if he could think of any other topic which should be discussed under the head of weeds. He was unable to name another.

Mary, what is the definition of a weed? Mary reads — "A weed is a plant growing where it is not wanted." Do you think that is a good definition? Why? Are all weeds on your farm also weeds everywhere else? Illustrate.

Alice, in the topic, "Why Weeds are Enemies," how many different reasons are given? Alice reads silently and intently and says that she finds five reasons given. She names these five reasons. What else, Alice, is given in this paragraph besides the five reasons? Alice looks carefully and states that she finds a quotation relative to the unsightliness and disgrace of weeds. From what is this quotation taken? Alice does not know nor do any of the others. See if you can find out by to-morrow. Alice tells her teacher in the morning that the quoted sentence is from the Bible, so her mother told her, and she locates and gives the statement.

Henry, how many and what classes of weeds are named? Henry looks at the book and answers correctly. Henry, what is the chief characteristic of annuals? Of biennials? Of perennials? Henry looks sharply, and then the teacher has him tell the distinguishing attributes without looking in the book. The teacher then suggests that Henry write the three definitions carefully on the board. He makes some mistakes, which all take a hand in correcting. The English is noted carefully, and the work is finally done neatly and in good form.

Mary, Jane, and George contribute their share, and the last three topics are carefully analyzed so that the pupils understand and can separate the large points or heads. By use of the book the different members of the class note that of the specimens in the room there are three annuals: ragweed, purslane, and prickly lettuce. There are two biennials: burdock and wild parsnip. The perennials are quack grass, yellow dock, plantain, and Canada thistle. In all this work teacher and pupils coöperate in a socialized study recitation. The pupils have been asking questions, also, concerning the book statements and relative to the various specimens.

As a result of the study of the text, teacher and pupils work out an outline which the teacher places on the board with the help of the pupils. The outline looks about as follows:

### I. *What a Weed Is*

1. Definition
2. Characteristics
3. Sweet clover
4. Oats and grass

### II. *Why Weeds Are Enemies*

1. Prevent plant growth
2. Take moisture
3. Take plant food
4. Shade plants
5. Harbor insects

### III. *Classes of Weeds*

#### 1. Annuals

- a. Definition and nature
- b. Examples (5)
- c. How to kill
  - (1) Cultivation
  - (2) Prevent going to seed
  - (3) Burning

#### 2. Biennials

- a. Definition and nature
- b. Examples (5)
- c. How to kill
  - (1) Why more difficult
  - (2) Use of spud on lawns
  - (3) Prevent going to seed

#### 3. Perennials

- a. Definition and nature
- b. Examples (5)
- c. How to kill
  - (1) Great difficulty
  - (2) Killing roots
  - (3) Smothering
  - (4) Use of salt and acid
  - (5) Three best ways

As a result of this study together, which took about thirty minutes, the pupils have learned the need for close and careful silent reading, they see how topics and paragraphs are put together, they learn how to select the important points, they see the need for systematic outlining, and they have a better understanding of the general problem of mastering and organizing a unit of thought.

**Individual supervised study.** The rural teacher should understand that supervised study in her school may go on during a study recitation or it may be carried out between classes or recitations. There should be both kinds of super-

vised study, the first largely a group activity, while the supervision as the teacher goes from desk to desk is mostly individual. An up-to-date rural teacher will cut down her testing recitations, and do a great deal more of this supervised-study work than most teachers are doing at present.

It is well to keep in mind that when you are working with a pupil in his study-lesson activities you are teaching him as truly as when you hear him recite his lesson, often much more so. Pupils vary greatly in their need for help. Some need just a hint and others require repeated and daily assistance in all the steps of their study and acquisition. No child should be helped to the extent of robbing him of the power and the joy which comes through personal victory in overcoming difficulties. It is a fine art, learned only by practice, to know when to help and when to keep hands off in this supervised study. Many times the teacher's function is to show pupils where they can find the help they need, and then to leave them to work out the problem by themselves.

It will be useful frequently to assist a pupil in formulating and stating his problem or questions, set him on the track of the solution, and then leave him to his own devices. It happens many times that a child has difficulty because he does not read carefully, thoughtfully, adequately. By the use of a skillful question or two the teacher should stimulate the pupil to go over the paragraph or topic again to find the facts which he has failed to see before. In all of this individual work with a pupil the teacher can easily train the child to make notes in good form, which is one of the important elements in successful study. Here is opportunity for fruitful, well-motivated work in English. A well-kept notebook in geography or history may certainly be an objective worth considerable time and thought.

In the work with individual pupils at their seats a teacher

will be able to observe the study habits of each child. If a pupil is wasting his time, the teacher should know why; there are various reasons, the chief of which are lack of adequate motivation and of sufficient knowledge and skill in the art of study. A great deal of time is wasted because pupils have wasteful habits of work. If the child is discouraged or finds study distasteful, the teacher should know it and find ways of overcoming the difficulties. Find out if the child reads the lesson material over without attention to meanings or to implications and applications. Find how he memorizes. Inquire into his methods of attack, and teach him to go below the surface.

**General suggestions for teacher and older pupils.<sup>1</sup>**

1. Teachers should understand and appreciate the fact that *ability to study effectively is of far greater importance in life than almost any other ability which the school can give the child.* Bagley says: "To teach a child to study effectively is to do the most valuable thing that could be done to help him adjust himself to any environment of modern civilized life into which he may be thrown."

2. *Our system of examinations has tended to produce wrong habits of study.* Pupils tend to fill their minds mechanically with a jumble of unrelated, memorized facts. Open-book examinations, in which pupils must scan the text closely, analyze the subject matter, find problems and data for problem solving, pass judgment upon the relative importance of the textbook statements, are worth much more than the common stereotyped variety.

3. *Pupils study best when they have a motive for study.* If

<sup>1</sup> Some of these helps were suggested by a set of directions on study printed for the high school connected with the University of Chicago. Similar ideas are also found in a very useful book by DR. G. M. WHIPPLE on *How to Study Effectively*, published by The Public School Publishing Company, Bloomington, Ill.

the older pupils, for example, are to find out whether the schoolroom is adequately lighted, or if they are to make booklets in agriculture to place on exhibition at a mothers' meeting, there is some good reason for study, and it is likely to be profitable.

4. *Study the dictionary with the pupils frequently.* Teach them all the parts of the book and how to find all sorts of information most expeditiously. Supervised dictionary work involves interests, attitudes, abilities, as well as merely knowledge.

5. *Teach pupils to find suitable captions for paragraphs, stanzas, stories, anecdotes.* They will need to read successfully in order to get the main idea or thought. This is one form of study.

6. *Teach and train pupils how to test themselves.* Can they determine whether they know a lesson or a topic? Pupils should be taught to know that they know and to realize the situation when they don't know.

7. *One of the most useful arts in study is that of arranging material in good form on a page.* Teach about captions, topics, and subtopics and how to place the general title and use the various numerals, thus:

I .....
1.....
(a) .....
(b) .....
2.....
II.....
1.....
2.....
(a) .....
(b) .....

8. "*Be sure you know just what the form or process should be. Don't take chances on repeating something wrong. Be on guard against errors. Remember that one wrong practice cancels many right ones, and doubles the work ahead of you.*"<sup>1</sup>

9. *One of the arts of study is that of taking notes.* Pupils should be taught and trained how to set down the leading, suggestive points of a cyclopedia article, for example, or of what the teacher or some pupil gives in the way of useful information, and then to organize these notes into a simple, compact outline, which will be kept in a well-bound notebook.

10. *Learn to find the milk in the cocoanut.* Get the values of paragraphs. Some words, sentences, and paragraphs are much more important than others. Get at the essentials and learn these. This is for the teacher's use, also, of course.

11. *Good physical conditions are of basic importance.* Effective work requires obedience to well-recognized laws of health in matters of sleep, diet, fresh air, and adequate exercise. It is best to rest a while both before and after eating, and not to study at such times. Physical surroundings should be sanitary and healthful. Temperature and ventilation require intelligent attention. Illumination should be adequate, with the light at the left. A good chair and table are necessary, as well as books, rulers, paper, and pencils.

12. *The best workers are calm and persistent.* They neither hurry nor worry. The cool, unhurried student secures results with less waste of nervous energy. To go at a task promptly and vigorously will insure a good beginning. Loafing and dawdling are fatal; energy and the will to learn are indispensable. A rocking-chair is not conducive to concen-

<sup>1</sup> THOMAS, F. W.—*Training for Effective Study*; Houghton Mifflin Company.

tration. When you begin to read sentences over and over without sensing the meanings, open up the windows and go out for a brisk twenty-minute walk. And, also, change the subject.

13. *Know the teacher's requirements.* Be definite and clear as to the assignment and what the teacher will expect of you in class. It is always best to write down the assignment in a special book, indicating what is to be simply read, what memorized, etc. You are not preparing simply to recite. You are studying to learn, to develop your personality. You are working primarily for yourself and not for the teacher. Older pupils should keep assignment books in which they set down directions for study, subject matter simply to be read, facts to be memorized, the sketch to be made, and so on. This is valuable training in study. Clear, definite, detailed, inspiring assignments will have much to do with the study procedure of the pupils. Children cannot do successful work in study unless they have a specific task and the means at hand for doing the work.

14. *Drill most on that in which you are weakest.* Find out the weak points in your knowledge and your abilities. In a spelling lesson perhaps you already know several words. Select the words difficult for *you*, and work on them only.

15. *View the subject matter from various angles.* To think over what one is learning is a very useful habit. Relate what you learn to the affairs of life as much as you can. Illustrate rules, definitions, and principles. Unless you do this you do not know them. Abstract statements are relatively meaningless until worked over into concrete instances.

16. *Endeavor to get at the aim or purpose of what you are doing.* In case the teacher does not make the purpose clear, ask about it. No work should ever be done for no reason at all.

17. *Think of the kinds of questions your teacher will ask.* Form the habit of putting questions to yourself, as you study. Try always to translate the book material into practical forms. In the business of life we do not have use for  $8 \times 7 = 56$ , in that form, as a rule. The business man often uses forms different from those taught in the schools.

18. *If possible the lesson should be quickly gone over before class time.* Some portions need repetition, perhaps orally. A list of related points may require rapid and repeated scanning, in the same order each time. The pupil should practice to deliver the results of study in the form directed by the teacher.

19. *Judgment is more important than mere memory.* Make memory serve the judgment. Analyze topics, and practice subordination of topics. Study according to a sound system, and review by getting a new view from a higher level of thinking.

20. *There should be an appeal to and through the various avenues of sense.* Appeal to eye and ear. There is a good reason for reading some material aloud. Material to be learned should be gone over, not laboriously, but quickly and repeatedly. Oral repetition will often help.

21. *It is often necessary to go beyond the state of just being able to do or to repeat.* You are sure and safe, to illustrate, only when you can run your car automatically. You and those whom you meet on the road are safe, when the various processes are "handed over to the effortless custody of automatism," leaving your higher self to look out for the other fellow. In committing a selection for public delivery automatic learning is highly important.

22. *The method of the whole is more effective than the method of small portions.* The most recent practice in memorizing a poem, for example, is first reading the entire

poem rapidly several times, and then the thoughtful repetition of a few logical units or combinations of stanzas. If the aim is to understand and digest material, but not to memorize it, the best way is to go through it all rather rapidly at first, to get a bird's-eye view of the related whole. Then the student should concentrate upon the subject matter topic by topic, bringing it all together finally in a summarized view, with a good condensed outline.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Why is a rural teacher justified in taking a great deal of school time to teach pupils how to study?
2. How can a teacher prepare pupils for successful study through adequate assignment? Try assigning "October's Bright Blue Weather." Such assignment may very properly take an entire preparatory period.
3. How can you *direct the study* of an ear of corn? Make out ten good questions to stimulate and guide the pupil.
4. How much and what kind of study can first-grade pupils do? Specify five definite study activities for first graders.
5. (a) Indicate five things you can do to teach your pupils how to use the library. (b) Indicate five lines of procedure which you would use in teaching pupils how to use a dictionary.
6. If a teacher assigns by pages or paragraphs or topics only, is she making provision for the study lesson? What else should she do?
7. Illustrate with an eighth-grade history lesson study questions that avoid calling for mere memory results.
8. Suppose that the next lesson in reading is "October's Bright Blue Weather": Tell what you can do to stimulate an interest so that pupils will actually study the poem.
9. How does studying the multiplication table differ from studying a problem involving the multiplication table, or part of it? Illustrate. We are not teaching *tables*, as such, very much any more. What are we doing now instead of the old way? Why?
10. After studying this chapter what larger idea of study do you now have?
11. Give illustrations of the fact that appreciation gives more pleasure and satisfaction in life than mere verbal memorization. How does the

power to appreciate enlarge and enoble life? Illustrate by referring to a poem; a picture; a musical selection; a great man or woman.

12. How can you avoid helping pupils too much when you are supervising individual study? Why should you have group supervision as much as practicable? Why must you give attention to individuals, also? Tell how you will find time to do this in a rural school.

## CHAPTER XXIV

### THE READING PROBLEM

ABILITY and skill in silent reading lie at the basis of all successful school work. Reading, both as a tool subject and in its cultural aspects, constitutes the very center of school activities and outcomes.

It is now an easy matter for any teacher to secure an abundance of material on the teaching of reading, especially silent reading; and it is hoped that the references at the end of the chapter and in the general bibliography at the end of the book will be useful in telling the teacher where she may find adequate suggestions and helps of various kinds.

**The common reading recitation.** To what extent are rural teachers still using the old type of class procedure in the teaching of reading? It is doubtless true that, notwithstanding the discussion and broadcasting of improved technique during the past few years, we shall still find abundant evidence of the old way of doing. What was that? The teacher for the most part simply required pupils to read orally, one after the other, in uncritical and uncriticized fashion. It often happened that stanzas and paragraphs were read over and over in order to fill in the fifteen-minute period. No aims had been set up in advance, and no problems were offered for discussion and solution. The author recalls his own experience as a boy in a rural school; he knows that then there was little consideration of meanings and practically no attempt to develop appreciation, interest, and attitudes. In short, the old teaching of reading was

largely the mechanical calling of words; this unprofitable method still obtains to a distressing extent in too many rural schools in every state of the Union.

**Silent reading and oral reading.** In silent reading the aim is to get thought and feeling from the printed page. Silent reading naturally precedes oral reading. In oral reading there is the added element of vocalization, which of course involves the use of the voice mechanism and requires additional expenditure of energy. Silent reading stresses the *comprehension* of meanings, while in oral reading the reader must *give expression*, more or less adequately, to meanings, to thought, and to feeling. Effective oral reading depends upon successful comprehension, interpretation, and appreciation. In adult life most of our reading is silent, but in school work oral reading has been common; it still has an important place in the early work of the first grade and in the reading of literary selections in any grade, particularly the upper grades, involving the emotional element. Oral reading should be largely confined to literary material in the upper grades. Factual subject matter is best adapted to silent reading purposes and methods. In all grades oral reading is necessary for drill in pronunciation, articulation, and enunciation. Silent reading and oral reading are two separate fields of reading, involving two different kinds of technique. However, thought getting, or comprehension, must precede thought giving, or expression, in oral reading.

**Silent reading in lower grades.<sup>1</sup>** 1. From the beginning emphasize content in the reading work. Mere word reading produces mechanical readers, who, of course, fail to get the thought. It is impossible to overemphasize meanings, whether the reading is oral or silent.

<sup>1</sup> Modified and expanded by the author from mimeographed material by Miss Bertha M. Rogers, Supervisor of Grades, Janesville, Wisconsin.

2. Various means may be used to stimulate and improve silent reading, such as: (a) writing commands on the board — "Close the door," for example; (b) writing directions for games on the board; (c) reproducing what has been read through drawings or other forms of expression; (d) phrase flashing.

3. Important silent reading habits are: (a) reading with lips closed; (b) reading to reproduce the thought; (c) recognizing groups of words rather than single words; (d) understanding words without saying them.

4. The child will learn to read well by reading a great deal. It is, therefore, important to provide an abundance of reading material adapted to the capacities of the pupils. Every rural school needs many books — dozens and scores of them — depending on the size of the school, for the first four grades.

5. In the second grade, increase the amount of time devoted to silent reading. In the third and fourth grades about as much time should be devoted to silent as to oral reading.

6. In the third and fourth grades, if not before, the teacher should use modern means of testing to discover the pupil's comprehension and speed. Such tests should be used repeatedly during the year. Each child may be taught to keep his own record or graph, which will serve as a stimulus to effort.

7. In the fourth grade the teacher should give practice: (a) in finding answers to good questions; (b) in naming paragraphs and stanzas; (c) in selecting a series of related points; (d) in passing judgment upon the value of statements; (e) in summarizing.

8. Children should be given plenty of opportunity to read for pleasure as well as for information. To this end the teacher needs to know her library, and it is her duty to introduce good books to her pupils frequently.

9. Children will gain in speed only as they are able to recognize larger and larger groups of words. Phrase drills are of the greatest importance in developing this power, and the use of flash cards and sentence strips is an indispensable procedure.

10. If the teacher, or an older pupil who reads well, will often read for the benefit of the lower grade pupils it will be a

useful means of stimulating an interest in and a desire for reading.

**Silent reading and seat work.** The following suggestions on seat work in reading for the first grade are taken from the *South Dakota Course of Study*:<sup>1</sup>

Seat work in reading should be as carefully planned as the lesson itself if it is to accomplish its chief aim, viz., to give the pupil power to do a definite piece of work with a minimum amount of help. In assigning seat work, the following points should be kept in mind:

1. The work assigned as seat work should have a definite bearing upon the reading lesson.
2. There should be a real need for it, *i.e.*, the work, whether handwork or silent reading, should clear up the child's ideas, give him an added interest in learning to read, and help him in his mastery of the mechanics of the subject.
3. The directions for the work should be given in such a clear, definite way that each child in the group understands what is expected of him.
4. Some use should be made afterward of the work done. For example, if sentence building has been assigned, some of the children should be given an opportunity to read their stories to the class.

Forms of seat work suited to the first grade, in connection with reading, are:

1. Illustration of story or sentence work, using for this crayon, clay, chalk, lentils, folding, paper cutting, drawing, etc.
2. Putting sentences together, using either script or print to build the reading lesson part of it.
3. Reading silently sentences distributed by the teacher, then making an illustration suggested by such sentences.
4. Making original sentences, using word or letter cards.

<sup>1</sup> Printed through courtesy of J. Fred Olander, Pierre, South Dakota.

5. Building from a blackboard list some of the new words from the reading lesson.
6. Formal drawing — tracing pictures, coloring squares and circles prepared by the teacher.
7. Sorting words and sentences ; finding words alike, separating known from unknown words.
8. Reading at desk a selection for which preparation has been given in class.
9. Reading independently from primers easy stories, to be told or read in class later.
10. Rhythrical work ; using lentils, sticks, seeds, leaves, etc. Repeat the exercises in borders for rugs, for wall papers.
11. Tracing and coloring outlines — the fox, the cat, the goat, the rabbit, the mouse, the bear, the little red hen.
12. Freehand cutting and pasting of the groups of animals appearing in the stories.
13. Free use of the blackboard.

**Silent reading in upper grades.** In the four upper grades the teacher should use the various means now available for increasing both comprehension and rate to as high a level as possible. Standards are now well recognized, individual diagnosis is easily possible, and remedial measures can readily be obtained. In these grades silent reading and the development of habits of study should go hand in hand. To this end pupils need to be trained in initiative, in judging the value of subject matter, in organizing and classifying factual material, in thinking as related particularly to the use of concrete imagery, in the development of such skills as scanning or judicious skipping, in reference reading, etc.

In the last years of the elementary course, the teacher has a rare opportunity to develop and to fix life interests. Thoughtful reading and a taste for good literature must be secured in these upper grades if these habits are ever to be formed at all. Now is the time to fix abiding interests and

habits in the matter of newspaper and magazine reading, and in all of that varied reading which the child does at home for pleasure as well as for information. Too often the teacher does not see the bearing of the reading problem in school upon the entire life history of the individual. If during these impressionable years the child becomes a skillful silent reader and has developed a liking for a wide range of good reading, perhaps the school has, in this way, rendered the greatest possible service within its power. Every effort should be made to broaden the child's outlook upon life, to widen and intensify his experiences through appreciation of social values, of the beautiful in nature and in human nature, of humor, and of the best in intellectual interests. This can all be done through the skillful teaching of silent reading, particularly in the four upper grades.

**Silent reading and study.<sup>1</sup>** *Economical and effective study habits.* The ability to analyze; the ability to use ideas in other situations; the ability to express judgments; the ability to interpret; the ability to reproduce.

#### *Grade I*

1. Special attention to content. Following accurately printed or written directions.
2. Have children pick out phrases, words, or groups of words from sentences. Use matching games.
3. Reading to find important idea in a selection; to decide the characters and scenes in a simple play.
4. Reading questions silently and giving answers orally.
5. Interpret stories and poems through pictures, music, and other expressive ways.
6. Lead children to observe a sequence of important ideas.

<sup>1</sup> This material is the work of Miss Isobel Davidson, formerly a supervisor of city grades of the State Department, Madison, Wisconsin. Published by permission.

*Grades II, III, IV*

1. Lead children to find: *a.* Answers to simple problems, later to more difficult ones. *b.* Important ideas of a selection. *c.* A series of closely related points. *d.* The central thought. *e.* Descriptions. *f.* Elements of time and place.
2. Have children: *a.* Relate materials read to previous experience. *b.* Compare characters in stories to those in life. Select chief and minor characters. Find a part of selection which gives most knowledge of a certain character. *c.* Suggest appropriate names for paragraph and for parts of a story. *d.* Tell what they like and what they do not like, and tell why.
3. Train children to remember and reproduce; to give definite questions; to form mental pictures of what is read.
4. Develop attitude and habit of looking for meanings in all reading exercises; the habit of finding simple quotations and recording them in "My Own Word Book."

*Grades IV, V, VI, VII, VIII*

Habits of effective silent study should receive large attention during these grades. Lead pupils to:

1. Find the central idea in paragraph and short selections.
2. Find the author's aim in which the author's purpose is fairly evident.
3. Discover problems for study and investigation, the teacher initiating them through her questions.
4. Find a series of closely related points in short selections. Outlines made with help of teacher.
5. Determine the relative importance of statements in regular reading material. Teacher directs discussions to proper conclusions, laying foundation for independent judgment.
6. Find answers to thought-provoking questions asked by pupils or teacher on paragraphs and relatively easy passages previously assigned.
7. Select facts which relate to a problem, the pupil searching for facts and passing judgment upon their relative worth.

8. Judge the relative worth of statements as presented, the teacher helping pupils to recognize the truth or correctness in presentation. Lay foundation for critical attitude.
9. Remember and reproduce short selections, containing narrative and descriptive material from several sources — organize and put in form for coherent, clear-cut presentation.
10. Interpretation of simple material through dramatization.
11. Critical interpretation of difficult material. Distinguish between passages requiring careful study and those which do not.
12. Special training in the use of appropriate helps in the interpretation of materials.

Keep the work simple, within the range of children of each grade, gradually increasing the ability to analyze, to think clearly, to state ideas or facts more accurately in each succeeding grade.

**Comprehension and speed.** There is a close relation between comprehension and rate, or speed, in silent reading. As a rule the pupil who has the most speed also shows the best understanding of what is read. This is not always true, however, but it is easy to discover the situation in the case of any individual child. Not only are speed and good comprehension usually found together, but it is also true that these factors are best trained or developed together, coördinately. When the vast quantity of reading matter now available is considered, and when we appreciate the fact that silent reading is the great means of study, it is easy to understand that increase of skill both in comprehension and speed is highly important. The slow reader, who finds constant difficulty in interpreting the page, is greatly handicapped in all the work of the school. Every effort should therefore be made to increase such a child's speed *and* comprehension.

A number of elements or factors have more or less influence in determining and increasing both rate and comprehen-

sion. Practice in reading as fast as possible is an important element; each child should be encouraged to read up to his normal limit. All motor tendencies, such as lip movements or contraction of the muscles of vocalization, interfere with increase of rate and should be gradually eliminated. Flash cards are of great assistance in increasing the eye-span. If a pupil is familiar with the subject matter, and if he reads with distinct purposes in mind and because of a natural interest, he will read much more rapidly. Ability to give good attention is always to be taken into account. Individual graphs of progress, which the child can make and interpret himself, will not only measure success, but act as a decided stimulus to increased effort.

Comprehension is determined by efforts to reproduce what is read, by the use of reason and judgment, by finding answers to thoughtful questions, by practice in summarizing, by practice in formulating a series of questions. Speed has a direct influence upon comprehension, but no child should be speeded up beyond his normal rate. *Comprehension must keep pace with increase of speed.*

**Testing and improving comprehension and speed.** Sometime during the first month of school you should test all of your pupils in the five upper grades for speed and comprehension in silent reading. This is not a difficult procedure, and you will find the results of great value to you in determining the teaching and drill needed for individual pupils.

Select easy reading matter adapted to the particular grade; usually easy stories will be of most service. When the teacher gives the signal the pupils start to read. When a minute has passed, say "stop!" and have each child draw a line under the last word read. Then have the pupils count the number of words which each one has read. To check up, have the count made by two or three pupils in each case.

The following standards may be used with confidence as they represent the testing of hundreds and thousands of pupils :

Fourth Grade . . . . .	160 words a minute
Fifth Grade . . . . .	180 words a minute
Sixth Grade . . . . .	220 words a minute
Seventh Grade . . . . .	250 words a minute
Eighth Grade . . . . .	280 words a minute

At the beginning of the year the teacher will find a wide variation in ability. If, however, she makes good use of her individual diagnosis, and if she tests frequently and drills adequately, at the end of the year the members of the class should be and probably will be more nearly together. Drill most those who most need drill. Some will need to be trained to increase their speed, and some who do not grasp meanings readily will need to be trained especially to get ideas or thought, rather than mere words. Keep a record of the attainments and progress of individual pupils. A sheet of cardboard should be ruled, and the results from week to week may very well be kept posted for all to see. Encourage pupils to compete with each other and especially to excel their own previous records.

Post up the scores like this :

	SPEED	GRASP
Mary Jones . . . . .	180	7
Helen Smith . . . . .	250	3
Anna Brown . . . . .	100	8
John Baker . . . . .	125	7
Henry Orcutt . . . . .	225	9

This means that Mary Jones read 180 words in a minute, and that she answered correctly 7 questions out of 10, on the story. Helen Smith has speed, but is lacking in comprehension.

hension. Helen answered only 3 questions out of 10 correctly. Henry Orcutt is the best reader of the five.

One of the greatest services rendered by our modern system of tests and measurements is that our teaching becomes more definite and effective and more closely adapted to individual capacities and needs. Silent reading should predominate in the upper grades, but don't forget that high grade literary masterpieces, such as good poems, must be read orally, for the sake of both comprehension and appreciation.

The teacher will discover three classes of pupils: (1) the slow readers, (2) the thoughtless, mechanical readers, (3) the pupils who read with good speed and comprehension. This last group are normal readers, and they should be given as much suitable reading material of all sorts as they can well assimilate. The library can and should be used extensively by the third group.

In ascertaining the grasp of content the teacher may make out ten simple questions on the material read. These questions should call for only the obvious facts of the sentences and paragraphs. In marking the pupils on speed and comprehension use some such scheme as this:

200	180	250	290	175
—	—	—	—	—
6	10	2	7	0

The number above the line indicates the number of words read and the number below the line shows the number of questions answered correctly. Each question should have only one definite, correct answer. This will help much in scoring and will also promote fairness.

**Assignment of problems.** The rural teacher who makes regular, daily use of thought-provoking study questions will have little cause to complain of lack of interest during the

so-called recitation period. These questions may be placed on the board if there is room, or, better, they may be passed out in the form of hectograph or carbon copies. Usually the rural teacher does not have much if any blackboard space to spare. The making of good problem questions is an art which both teacher and upper form pupils may well cultivate. On an ordinary selection, like "To a Waterfowl," for example, there should be perhaps a dozen to twenty questions which will cause the pupil to read between the lines, to go below the surface, to get both the obvious and the more subtle meanings, to think. *What, when, and where* questions may be needed, but *how* and *why* questions are vitally necessary. Several series of reading textbooks now give good study-problem questions. Rural teachers should get in touch with the publishers of these books.

**The pupil's problem questions.** What is a problem for one child may not be a problem at all for another, because of varying ability and experience. It is not difficult to train pupils to make out their own questions, which may be used to direct their reading and study, thus furnishing both purpose and motive. If the pupil is taught to read with a purpose or to solve genuine, personal problems, he then is placed on the highway to real achievement and progress. Teach pupils to make out questions, first on matters which they cannot understand, and then relative to the value and usefulness of the material. See to it that the questions do not constantly stress merely trivial, factual details. That will be the child's natural tendency. Develop a critical, questioning attitude which seeks for and emphasizes' meanings and relations. This can be done with upper grade rural school pupils. The making of good questions by pupils is an important phase of the art of study; here is a most suggestive and helpful field for the teacher during the study recitation.

**Direction sentences.** For general suggestions on the various ends and means of silent reading procedure, note briefly the subject of *Action Work* in a bulletin on reading of the Michigan Department of Public Instruction:<sup>1</sup>

Written directions are excellent in stimulating silent reading. The teacher writes the directions one at a time on the board and the child who can read may perform the act.

- Skip to your desk.
- Run to the door.
- Get the flag.
- Hold up your hands.
- Jump on one foot.
- Point to the clock.
- Give me the chalk.
- Wink your eye.
- Run to the north.
- Stand on one foot. Etc., etc.

Much drill may be had in this way. It is wise to write out all your simple directions from the first. The children will form the habit of silent reading to find out what they are to do. The older children will enjoy helping the small people with their "action cards." Let each third grader choose a first grader to help, and see how much each can accomplish. Children often have better success than the teacher. The "action words" in your basal reader might be introduced in this way, thus saving much time when the reader is used. Games played by following written directions are a great pleasure to a group of children.

- John, you may get the bean bags.
- Ruth, please get the board.
- May and Bob may choose sides.
- Get in line ready to take your turn.
- Junior may keep the score. Etc.

<sup>1</sup> Published by permission of the State Superintendent of Public Instruction of Michigan.

**Summarizing exercises.** Germane and Germane<sup>1</sup> state the four fundamental aims of silent reading to be speed, comprehension, organization, and retention. The organization of subject matter is in most rural schools a problem which is given scant attention, and for the most part is an unsolved problem. The making of outlines as related to study is discussed elsewhere (pp. 483-487) in this book. Outlining and summarizing should receive daily attention in the four upper grades of a rural school. There will be opportunity to do this in reading, language, history, geography, and nature study. The best method is to use class time, when teacher and pupils work on the problem with books open. Let this be a coöperative enterprise during a study-recitation exercise. The points should be set down on the board and the organization worked out together. Outlines and summaries should be written on the board and copied into the pupils' notebooks. (Chapter XXIII on Teaching the Art of Study.) The rural teacher will find samples of such summaries in several modern readers, geographies, histories, and language books, as well as in quite a number of professional books.

**Organization and outlines.** According to the Laurel Book Company,<sup>2</sup> publishers of the *Lincoln Readers*, pupils should possess accomplishments or abilities in organization of subject matter at the end of the indicated grade, as follows:

### *Third Grade*

1. Ability to find central thought of simple selections.
2. Ability to select main heads and supporting details.
3. Ability to arrange simple facts in order.

<sup>1</sup> GERMANE AND GERMANE — *Silent Reading, A Handbook for Teachers*; Row, Peterson and Company.

<sup>2</sup> ANDERSON, C. J., AND DAVIDSON, ISOBEL — *Lincoln Readers*, Books 3 to 8 inclusive; The Laurel Book Company.

4. Ability to give oral summaries of paragraphs and simple selections.
5. Ability to gather simple data for the solution of a problem.

#### *Fourth Grade*

1. Ability to outline fourth grade material.
2. Ability to find central thought of paragraphs and selections.
3. Ability to bring essential data to bear upon solution of problems.
4. Growth in ability to arrive at conclusions through facts.

#### *Fifth Grade*

1. Ability to outline and summarize fifth grade material, selecting main thoughts and relevant supporting details.
2. Ability to put things together in orderly fashion.
3. Use of outline as aid to study.

#### *Sixth Grade*

Pupils should be able to outline selections with no guidance, to select and evaluate data for problems; and they should also be able to pick out the most important point of a selection, arranging other supporting details in order of their importance.

**Writing titles.** Neither teacher nor pupil will be able to write clear, comprehensive, and brief titles for stanzas, paragraphs, and topics unless they grasp the thought as an organized, related unity. Such comprehension requires definite training in silent reading, and is a valuable aid in study. If the teacher will make frequent, almost daily, use of this type of silent reading, it will bear fruit wherever the pupil must get an understanding of any sort of organized subject matter, as in geography or history. It is best to do work of this kind as a class exercise, under the direct supervision of the teacher. Let the members of the class state their choice of names and titles. These should then be

written on the board for class criticism. Both informational and inspirational material may be used for this purpose. In some series of readers various aids for this variety of silent reading are given, but in many others no help is offered at all. It is suggested that the teacher secure books in which this work is done, so that she will be informed as to the best ways of doing it. Note the references at end of this chapter, and elsewhere.

**The audience situation.** It is probably the practice in most rural schools for each pupil to bring his copy of the reader to the class exercise, and to look on the book while another reads orally. Where this is done no audience situation obtains. There will be no real audience unless the reader presents something entirely new to the other members of the class. In the lower grades it is well, as a rule, for the pupils to look on while another reads, for this gives definite training in silent reading. It is also true that in the study of short poems, or of any material of especial literary value, the best way is for each pupil to have a copy of the selection. Such material involving rhyme, rhythm, or literary values which demand oral rendition for their appreciation are best adapted to oral reading without the audience situation.

However, outside of school oral reading is largely audience reading, and pupils should be practiced in this art in school. There seems just now to be some danger that oral reading will become one of the lost arts. If pupils are to become conscious of an actual audience they must be permitted to present something which the others do not know. This will motivate the oral reading and secure better results than the usual method. Children naturally possess the group instinct which prompts them to wish to instruct and to entertain an audience. This desire should be gratified and encouraged. Perhaps most of the oral reading in the upper

grades should be audience reading. The reader is here referred to *Silent and Oral Reading*, by Stone, for a good discussion of this subject. Chapter VI of Stone's book is devoted entirely to the audience situation.

**Helping backward pupils.** Remedial work in reading has received much attention during the past five years. The results of investigations by Gray, Anderson, Pressy, Thorndike, Horn, Judd, and others have determined a diagnostic and remedial procedure which has revolutionized the progress of thousands of children, particularly in the larger cities. In rural schools, however, the movement is just making a slow beginning.

Backwardness, or retardation, both in oral and silent reading, is due to a variety of causes. In no work of the school do we find a more concrete and forceful illustration of the need for making a study of individual differences. There is no such thing as general reading ability.

Germane and Germane state that the results of an experiment show that 78% of the oral reading defects in a particular group of children were distributed as follows: repetitions, 15%; insertions, 24%; omissions, 15%; substitutions, 24%.

"After using silent-reading tests as a means of diagnosing silent-reading difficulties, the results showed that 79% of the errors can be grouped under the following headings: meager vocabulary, 33%; inability to find the main idea, 19%; omission of part of the idea due to short span of perception, 14%; inability to concentrate and get specific data, 13%."<sup>1</sup>

There are many causes for poor reading, both physical and mental. It is often true that the child is suffering from eye, ear, nose, throat, teeth, or other physical defects, including malnutrition, which can usually be remedied if taken in

<sup>1</sup> GERMANE, C. E., AND GERMANE, E. G.—*opus cit.*

time, but which, while present, interfere greatly with all school work. Sometimes scanty vocabulary lies at the root of the trouble ; sometimes the difficulty is with the eye-span, or the eye-voice-span in oral reading ; and, in a percentage of instances, it is plain mental deficiency or lack of intelligence. Take care, however, about the last diagnosis. Be sure you are right about it. You may be wrong. You can't afford to guess ; you do not need to guess now, for the tests are available.

Wheat<sup>1</sup> makes the following summary of suggestions at the close of his instructive chapter on backwardness :

1. The abilities of the pupils should be measured.
2. Points of difficulty and of failure should be discovered and classified.
3. Various types of backwardness should be diagnosed.
4. Remedial instruction should be planned for each type of backwardness.
5. The pupils should be grouped into special classes and instructed according to the needs of each group.
6. The progress of the pupils should be tested from time to time.

When our diagnosis gets to the point where we see that slow reading is due, for example, to a small unit of eye fixation or to many word difficulties, and that failure to get the thought may be due, among other causes, to mechanical word calling or to a small vocabulary, then we shall be more likely to adapt special remedial measures to special kinds of backwardness.

**Motivation of drill.** Wheat says that "The mechanical phase of the reading procedure should be made as easy as possible by making it as automatic as possible." The mechanics of learning to read is a case of habit forming.

<sup>1</sup> WHEAT, H. G. — *The Teaching of Reading*; Ginn and Company.

Every teacher knows that drill and practice are necessary to form a habit or to fix skill. Phonic drill or vocal drills of different kinds, as well as drill to secure the various skills in the silent reading process, are necessary. This topic has to do with the problem of motivation of drill. This means the making of drill work so interesting and attractive that it will be carried forward with greatest pleasure, satisfaction, and effectiveness.

Parker, in his *General Methods of Teaching in Elementary Schools*,<sup>1</sup> in the chapter on drill and practice, states the principles of drill, as follows :

1. Only correct practice makes perfect.
2. Therefore, delay drill until a correct start is assured.
3. Always subordinate speed to accuracy.
4. Avoid wasting time on nonessential and accessory processes.
5. Secure zeal, interest, and concentration of attention with short, snappy drills.
6. Use ready-made, scientifically organized drill systems.
7. Continue drill until precise standard scores are maintained.
8. Give additional practice in using abstract forms and processes in concrete situations.

The *Teachers' Manual to Accompany the Field Primer and First Reader* describes these drill devices : climbing the hill, boxing words, the merry-go-round, climbing ladders, the pail of water, silent reading through action sentences. Teachers will also find devices and games described in the book, *Reading in the Public Schools*, by Briggs and Coffman.

#### *Some General Suggestions on Drilling*

1. Alternate periods of drill with adequate periods of rest, relaxation, and change.

<sup>1</sup> PARKER, S. C. — *General Methods of Teaching in Elementary Schools*; Ginn and Company.

2. Make use of the play instinct.
3. Children naturally like to compete with one another. Use the spirit of emulation.
4. Show the child his personal need for drill. Individual charts are useful for this purpose. Make graphs of progress.
5. Sometimes an enthusiastic teacher will arouse an interest until motivation places the drill work on a better basis.
6. The teacher should furnish good models of what is right. The pupils will be stimulated to practice by the example of the teacher or of other pupils.
7. Make repeated use of standardized tests as a means of motivation.
8. Children naturally desire to repeat, to practice. Use this native impulse.
9. Smaller pupils should not be put under great pressure in drills.
10. Group rivalry, as between classes, is often legitimate, if not carried too far, and results in stimulating drill activities.

**Oral reading tests.** Oral reading tests are not used as much as silent reading tests, because there is less need for them and also because they are more difficult to administer. There are not many standard tests of this kind. The one most widely known and used was devised several years ago by Dean Gray of the School of Education, University of Chicago.<sup>1</sup> Doctor Gray has revised this test repeatedly during a period of extensive use in several large cities with some thousands of pupils.

This oral reading test is given to pupils individually, and to each child by himself where possible. Twelve paragraphs, starting with one easy enough for a first grader, and increasing in difficulty until too hard for an eighth-grade pupil, are given to the child on a large sheet of paper. The pupil reads

<sup>1</sup> GRAY, W. S.—*Oral Reading Tests*; Public School Publishing Company, Bloomington, Ill.

each succeeding paragraph, as far as he can go, and he is timed on his reading. The first two sentences are these:

A boy had a dog.

The dog ran into the woods.

The score depends on the rate as compared with the number of errors made. A record is made of all the errors by the one who does the testing. In general, the faster a child reads and the fewer his mispronounced words, repetitions, and so on, the higher his score. The test is not easy to give, and it requires some practice for the teacher to secure skill in giving it.

#### CLASSIFICATION OF ERRORS — THIRD-GRADE PUPILS

<i>Kind of Error</i>	<i>Percentage</i>
Repetition . . . . .	15
Insertion (letter or word) . . . . .	14
Omission (letter or word) . . . . .	8
Substitution . . . . .	24
Mispronunciation . . . . .	3
Accent . . . . .	4
Portion omitted . . . . .	7
Portion inserted . . . . .	10
Omission not changing meaning . . . . .	4
Addition not changing meaning . . . . .	2
Vowel sounds . . . . .	2
Confusing letters not governed by rule . . . . .	1
Wrong syllable . . . . .	3
Repetition to correct an error . . . . .	3
Not attempted . . . . .	1

The Gray test is useful as a means of individual diagnosis; by using it the exact difficulties of the pupil in oral reading are shown. As thousands have been tested the past few

years, it has been possible to set up standard scores for comparison. So now it is not difficult to tell the rank of any child, class, school, or city, in the matter of oral reading. The records show the types of errors made. The chief limitation of this test is the amount of time it takes to give it and to tabulate the scores secured. However, for purposes of individual diagnosis, particularly in the primary grades, this test is almost indispensable.

**Silent reading tests.** The testing of silent reading is a complex and difficult task because so many factors are involved in the reading process and because of individual differences among children. In her book on *The Measurement of Silent Reading*, May Ayres Burgess<sup>1</sup> says, as to the need for measurement in reading :

The object of these measurements is to make it possible to study education by finding out what the children can do. These new methods make the child and not the teacher the center of interest. They proceed by measuring the accomplishment of the pupil, rather than by analyzing the methods of the teacher.

Measurements of this sort, that can be easily administered and readily interpreted, are peculiarly needed in reading. The recent army tests have furnished impressive evidence, on a large scale, that results of school work in reading need to be improved. Such improvement would be greatly facilitated by better methods for judging results of classroom work ; and this fact is clearly indicated by the advances that have already resulted from the use of scales and tests for handwriting, arithmetic, and spelling. Much work has been done in the measurement of reading, but the inherent complexities of the tasks have resulted in tests that are, for the most part, harder to administer and far more difficult to interpret than those generally used for writing, spelling, and arithmetic.

<sup>1</sup> BURGESS, MAY AYRES — *The Measurement of Silent Reading*; Russell Sage Foundation.

The Courtis *Silent Reading Test No. 2*<sup>1</sup> is a well-known, reliable, and convenient test. With it the teacher can discover both the child's rate of reading and his ability to comprehend and interpret. For ascertaining comprehension, a series of paragraphs, with questions for the pupils to answer, are given. Here is a sample, quoted by Parker in his *Types of Teaching and Learning*:<sup>2</sup>

When the day of the party came, Daddy planted a Maypole and Mother tied it with gay-colored ribbons. There were to be games and dances on the grass and a delicious supper, with a basket full of flowers for every child.

1. Were the children to have anything to eat?.....
2. Were they going to play on the grass?.....
3. Were they going into the house to dance?.....
4. Were the baskets to be full of flowers? .....
5. Was it Daddy who tied the ribbons to the pole?.....

In the Courtis test there is a long list of paragraphs and several dozens of questions. No child will have time to answer all of the questions. The time is strictly limited. Each pupil is instructed to do his best to understand and to answer from knowledge, not by guessing. It can readily be seen that such a measuring device is a test both of speed and accuracy in silent reading, or comprehension.

In Stone's text on *Silent and Oral Reading*<sup>3</sup> there is given an evaluation and a comparative estimate of several silent reading tests. On pages 224 and 225 of Stone's book the reader will find a rather complete list of the factors to consider in selecting reading tests. It is probably true that no single test yet devised is entirely adequate or satisfactory.

<sup>1</sup> COURTIS, S. A.—Public School Publishing Co., Bloomington, Illinois.

<sup>2</sup> PARKER, S. C.—*Types of Teaching and Learning*; Ginn and Company.

<sup>3</sup> STONE, C. R.—*Silent and Oral Reading*; Houghton Mifflin Company.

In order thoroughly to diagnose a child's reading ability several tests must be used at intervals.

**The selection of standard tests.** In the selection of silent reading tests it will be well for the rural teacher to consult with her superintendent or supervising teacher. Or it may be advisable to write to a state normal school, the state university, or to the state department of education. The publishers of some of the teachers' magazines are also in a position to give reliable information on this subject. Teachers College, Columbia University, and the Russell Sage Foundation, both of New York City, are other sources. Send to the World Book Company, Yonkers-on-Hudson, or to the Public School Publishing Company, Bloomington, Ill., for their descriptive literature.

In the Virginia State Course of Study the following tests are recommended :

1. MONROE — *Standardized Silent Reading* (Speed and comprehension.)
2. GRAY — *Oral Reading Test*.
3. THORNDIKE-MCCALL — *Reading Scale* (Comprehension.)
4. BURGESS — *Picture Supplement*.

*Teaching of Reading* by Wheat recommends the following standard tests :

1. To measure word recognition :
  - a. Haggerty — *Visual Vocabulary Test*.
  - b. Thorndike — *Improved Scales for Visual Vocabulary*.
2. To measure rate and quality of silent reading :
  - a. Gray — *Silent Reading Tests*.
  - b. Courtis — *Silent Reading Test No. 2*.
3. To measure silent-reading ability :
  - a. Monroe — *Standardized Silent Reading Tests*.
  - b. Burgess — *Scales for Silent Reading*.

Wheat arranges some tests by grades as follows:

*Grades I-III.* Haggerty — *Reading Examination, Sigma 1*; World Book Company. Pressy — *Understanding of Sentences*; University of Indiana, Bloomington, Ind.

*Grades III-XII.* Thorndike-McCall — *Reading Tests*. Consist of ten equivalent forms. Teachers College, Columbia University, New York City.

*Grades III-VIII.* Burgess — *Scale for Measuring Ability in Silent Reading*, Russell Sage Foundation, New York City; Kircher — *Wisconsin Supervising Tests in Reading*, Eau Claire Book and Stationery Company, Eau Claire, Wisconsin; Monroe — *Standardized Silent Reading Tests*; Public School Publishing Company, Bloomington, Illinois.

Beside the above, the *Bolenius Tests*, published by Houghton Mifflin Company, the *Stone Narrative Reading Tests*, and the *Stanford Achievement Tests*, published by the World Book Company, should be mentioned.

**Tests in the rural school.** The rural teacher can and should make profitable use of some of these standard tests. She should not guess in this matter of silent reading, but rather use modern tests and standards to make a diagnosis of the particular difficulties of individual pupils. The *State Course of Study for the Rural Schools of Virginia*, issued in April, 1923, contains this statement which is particularly and emphatically true in reading, although it applies in general to all modern tests of mentality and achievement:<sup>1</sup>

Standard tests and measurements may be used to great advantage if properly administered, in at least the following ways: in determining individual and class ability; in determining individual and class achievement; in determining individual and class progress in various school subjects and skill processes; in classifying

<sup>1</sup> Printed through courtesy of State Superintendent of Public Instruction of Virginia.

pupils; in promoting pupils from grade to grade; in comparing results achieved in certain grades of one school with those of the same grades of other schools; in correcting weak spots in individual and class progress in one's own school; and in determining the effectiveness of one's own teaching.

#### REVIEW, TEST, AND PROBLEM EXERCISES

1. Make a list of all the different kinds of reading material suitable for silent reading that you can think of. Why do some insist upon factual material only?
2. Why are "Annabel Lee" and the "Gettysburg Address" more adapted to oral than to silent reading? Will the pupil need to get the thought and feeling first as a prerequisite to good expression? Read them both aloud before you study the meanings and after. Why should there be a good deal of oral reading in the primary grades, as a teaching procedure?
3. "The child will learn to read well by reading a great deal." Discuss that proposition. Does it need any qualification? How much is "a great deal" for a second grade child? For an eighth grade pupil?
4. Write out twelve suggestive, thought-provoking study questions on Bryant's "To a Waterfowl," which you would assign to an upper grade class in a rural school.
5. Study the section on study habits (pp. 501-503), then observe a rural school for several days to note which of these habits are exemplified.
6. Let us say that you are a student taking a teachers' training course. Read the following points carefully. Then apply them to your own life and experience during a given period of time, say a month:

#### *Reading Objectives*<sup>1</sup>

For what purposes do we read? 1. We scan our morning newspaper, before beginning work, reading carefully the two or three items that interest us. 2. Certain articles are read so that we may be able to reproduce the gist of them to others. 3. In our daily work we meet with many problems. We read to secure information that will assist us in the solution of these problems. 4. We read to determine the point of view of an authority on some vital question. 5. We read to keep in mind the supporting details of this central thought. 6. We select certain

<sup>1</sup> Printed by permission of the Laurel Book Company, Chicago.

fundamental statements upon which are based a line of argument. 7. We read widely from other authorities on this question to gather data which will assist us in testing the validity of the first author's statements. 8. We read so that we may organize, remember, and apply the contents of selections to situations other than those present in the matter read. 9. We read for pleasure which, if properly guided, results in the development of general culture, of appreciation, and of proper tastes. All of these involve the mastery of the mechanics of silent reading, the development of skill in different kinds of reading, in comprehension, interpretation, remembrance, and organization.

7. Make out twenty-five direction sentences for first grade pupils similar to those on page 508.

8. Write a summarizing paragraph of about one hundred words giving the gist of this chapter.

9. What do you understand by the *audience situation?* *Diagnosis?* *Remedial work?* Why has there been so little diagnosis and remedial work in reading in the past? Must diagnosis be individual?

10. If a child in the third grade reads slowly, haltingly, and with many errors, to what different causes may you attribute the weakness? What remedial work is possible?

11. In reading this chapter what reading abilities do you need? State five different things you can do in studying this chapter. How is the reading related to the studying? What will determine how much you get out of this discussion?

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## APPENDIX

### SUPPLEMENTARY LISTS AND REFERENCES

#### *A. School Calendar and Schedule of Events*

If the rural teacher will make out a schedule with dates, giving the chief events of the year for which she and her pupils will need to prepare, or which will be given some sort of attention, matters will more probably be properly cared for. Merely as a suggestion of what may be done, the following schedule for 1924 is printed here. Some teachers may wish to add to the list, others to change the calendar in some other way.

#### Schedule for School Year 1924-5

1. *School opens.* Monday, September 8, 1924.
2. *Big fall institute and rally.* Saturday, September 27. (For all rural teachers of the county. All rural teachers will wish to attend.)
3. *Mothers' meeting.* Friday Afternoon, October 3. (This is important, and should be prepared for carefully.)
4. *Halloween party.* Friday Evening, October 31. (This can be made the occasion for a school program and a general community gathering, to which all are invited.)
5. *Meeting of State Teachers' Association.* November 6-7-8. (If it is possible for her to go, the rural teacher will find it both interesting and profitable to attend this big state meeting, often held at the capital or the metropolis of the state. In many states a two-dollar membership fee also pays the subscription to the State Journal of Education for the year.)
6. *Armistice day program.* Tuesday Afternoon, November 11. (Invite a Legion boy, if you can secure one, or some other person, to give a patriotic talk. See program in this Appendix.)

7. *Thanksgiving program.* Wednesday Afternoon, November 26. (See program in this Appendix.)
8. *Thanksgiving recess.* From November 26 to December 1 — four days.
9. *Christmas program.* Friday Evening, December 19.
10. *Holiday vacation.* From December 19, 1924, to January 5, 1925 — 17 days.
11. *Washington-Lincoln program.* Friday Afternoon, February 20. (It is often convenient to have this combination observance for the two great men.)
12. *Meeting of State Sectional Teachers' Association.* (Held in the given state in February or March. In this state many rural teachers attend this particular sectional meeting, which is held at the Capital.)
13. *County teachers' meeting.* (This may occur in March or April; if not, during the fall or winter months. Every rural teacher is in duty bound to attend, if possible. Meeting held at county seat.)
14. *Town meeting and election.* Tuesday, April 7. (This is scheduled here in order to stress local civics. In some states this will be omitted, because of local conditions.)
15. *Spring vacation.* Second week in April. (This will be determined by local conditions and needs.)
16. *Arbor and Bird day.* Friday, May 1. (Not a legal holiday in most states, but a good time for a nature program and for a general cleaning up and straightening up, inside and outside of the building).
17. *Town contests* in spelling, writing, and arithmetic, preliminary to the County Contest in June, at which time representatives will be chosen to go to the State Fair, all expenses paid. Usually held the first Friday in May.
18. *Trip to county seat.* Friday, May 15. (This is an excursion which may mean a great deal to the boys and girls.)
19. *Peace day program.* Monday Afternoon, May 18.
20. *Memorial day program.* Friday Afternoon, May 29. Mothers' Meeting, Closing Day Exercises, and Community Picnic.

(This can be made a worth-while community center gathering for everybody in the district, old and young.)

### B. Equipment for a One-Teacher Rural School

(Recommended by Federal Bureau of Education,<sup>1</sup> as either necessary or desirable.)

Jaketed heater — 150 square feet of slate blackboard (24 inches and 34 inches from floor) — 12 blackboard erasers — covered container for water, or a sanitary drinking fountain — water pail — 6 inexpensive washbasins or 2 washbowls — mirror — coal hod — coal shovel — 2 floor brushes — dustpan and brush — oil mop — 6 gallons oil — wastebasket — pencil sharpener — teacher's desk — teacher's chair — 2 chairs for visitors — kindergarten table with chairs — 1 library table and chairs — 1 movable chair desk or adjustable seat per child — thermometer — globe — map of the world — map of the United States — map of State, showing counties and townships, or other divisions — hectograph — handbell — liquid-soap container — clock — bulletin board — first-aid case — umbrella rack — phonograph and records — piano or organ — 2 pictures — unabridged dictionary — 6 abridged dictionaries — 6 sets of compasses — boxes of crayons — cleaning compound — adjustable shades, light in color — screens for windows and doors — paper toweling — shelving for children's lunch boxes — suitable boards cut to fit tops of desks, making tables for school or community exhibits, dinners, etc. — measures, half-pint, quart, gallon, peck, half-bushel — foot rules and yardsticks — United States flag — such material for primary pupils as scissors, colored construction paper, plain construction paper, crayolas — modeling clay or plasticine,  $\frac{1}{2}$  lb. per pupil, in first two grades — phonic builders — sentence builders — number builders — picture and word matchers — 20 sheets of chip board, 27 by 19 inches —

<sup>1</sup> The rural teacher should send for the bulletin, *Equipment for the One-Teacher School*. It can be secured from the Superintendent of Public Documents, Washington, D. C., at a cost of 5 cents.

50 sheets of oak tag, 9 by 12 inches — price and sign marker or printing outfit — texts: modern texts in arithmetic, language, spelling, history, civics, geography, hygiene — 4 basic texts in reading through third grade — 2 basic texts in reading in other grades — 2 supplementary texts in reading per pupil, of as many different kinds as there are pupils in the class, for primary grades 1 to 3 — 3 sets of geographical readers dealing with food, clothing, shelter, and descriptions of the continents — set of 6 supplementary readers in history — 2 current magazines, containing juvenile material of literary excellence — magazine containing an abundance of pictorial material for use in geography — one good farm paper — one copy, for every child above third grade, of an inexpensive weekly current paper — cabinet of arithmetic practice material in the fundamentals (cabinet arranged specially for one-room schools may be secured) — 3 standard reading tests per pupil for testing progress in reading (select type easily scored) — one copy for each child above second grade of an intelligence test (for helping to grade and to properly organize one-teacher schools) — hot lunch equipment (see Bureau of Education's *Home Economics Circular No. 13*, by Henrietta Calvin, containing list of equipment) — library, containing 80 juvenile books, 10 for each grade.

### C. Phonograph Records for Rural Schools<sup>1</sup>

"Music appreciation can best be taught through the use of the phonograph, a necessary part of every school equipment. Through the phonograph, the teacher may arouse an appreciation of tone quality (that singing does not mean shouting), stimulate an interest in the great musical classics, whether they be folk songs or oratorios, train the ear to distinguish the different musical instruments and voice parts, and give an added charm to country life through the possibilities of hearing the best at home." . . . "Each of the

<sup>1</sup> This list of records is taken by permission from the Montana *Manual for Rural Teachers*. This manual is one of the best published. It can be secured for \$1.25 by sending to The Missoulian Publishing Company, Missoula, Montana. The list has been revised by Mrs. Frances Elliott Clark of the Victor Talking Machine Company, Camden, N. J.

following records was carefully selected with the needs of the rural school especially in mind."

(Numbers refer to Victor Records, but many schools may use Columbia Records, or those of other make, with much effectiveness and satisfaction, as well.)

17084 — Folk Dances — Shoemakers Dance — Klapp-			
dans . . . . .	\$ .75		
19729 — Medley March of National Airs . . . . .	.75		
35742 — Faust Waltz — Gounod — Band . . . . .	1.25		
19854 — Träumerei — Schumann — Violin String			
Ensemble . . . . .	.75		
19791 — Folk Songs — Quilting Party — Foster			
Male Jingle Bells } Quartet	.75		
16696 — Lullaby from Jocelyn — Godard — Orchestra			
Melody in F — Rubinstein — Quartet . . . . .	.75		
35289 — Strauss Waltz — Blue Danube . . . . .	1.25		
16995 — Schubert Serenade — Violin, Flute, and Harp			
Serenade (Titl)       "       "       "       "	.75		
17284 — Ballet Music — Faust — Gounod — Band . .	.75		
712 — Hungarian Dance — Brahms — Violin —			
Kreisler . . . . .	1.25		
35241 — Carnival Romain Overture — Berlioz — Or-			
chestra . . . . .			
Polonaise Militaire — Chopin — Band . . . . .	1.25		
19887 — Carry Me Back to Old Virginny — Male Quartet			
Darling Nellie Gray       "       "       "	.75		
16813 — Evening Star — Tannhäuser — Wagner — 'Cello			
18648 — Spring Song — Mendelssohn — Florentine Quar-			
tet			
To a Water Lily — MacDowell — Florentine			
Quartet . . . . .	.75		
35470 — Morning — Peer Gynt Suite — Victor Orchestra			
Åsa's Death — Peer Gynt Suite . . . . .	1.25		
654 — Lo! Here the Gentle Lark — Soprano — Flute			
Obligato . . . . .	1.50		
Total . . . . .	\$15.25		

## Additional Records

17735 — Songs of Our Native Birds . . . . .	.75
17937 — Gaynor Songs — Little Shoemaker, Blacksmith, Song of Iron, Baa Baa Black Sheep, How Many Miles to Babylon, and Bobby Shafto	75
17580 — America and Red, White and Blue — Band for Community Singing . . . . .	.75
18145 — Old Kentucky Home, Battle Hymn, Believe Me, Home Sweet Home — Band for Community Singing . . . . .	.75
855 — Four Leaf Clover — Williams . . . . .	1.50
55048 — Bridal Chorus — Lohengrin — Wagner . . . . .	1.50
742 — I Hear a Thrush at Eve — McCormack At Dawning " . . . . .	1.50
35265 — Grand March Aïda — Verdi Rondo Capriccioso — Saint-Saëns — Band . . . . .	1.25
16474 — Amaryllis — Victor Orchestra Minuet in G — Paderewski — Victor Orchestra . . . . .	.75
35227 — Onward, Christian Soldiers — March — Band Soldiers' Chorus — Faust . . . . .	1.25
17890 — Swing Low, Sweet Chariot — Plantation Melody Steal Away — Plantation Melody . . . . .	.75
35767 — Hallelujah Chorus — Messiah — Handel . . . . .	1.25
45495 — Spring Song of the Robin Woman . . . . .	1.25
17563 — Pilgrim Chorus — Tannhäuser — Wagner Anvil Chorus — Trovatore — Verdi . . . . .	.75
55066 — Sextette from Lucia — Victor Opera Quartette Quartette from Rigoletto . . . . .	1.50
Total . . . . .	\$16.25

*D. Pictures: What to Buy and Where*

Professor Charles M. Reinoehl, in *Bulletin No. 42*, issued by the United States Bureau of Education in 1922, gives the titles of 29 reproductions of famous paintings appearing in ten or more of

forty-four state courses of study for rural schools. These are printed below in order of frequency of appearance in the courses:

*First and Second Years*

Millet . . . . .	Feeding Her Birds
Raphael . . . . .	Sistine Madonna
Bouveret . . . . .	At the Watering Trough
Raphael . . . . .	Madonna of the Chair
Landseer . . . . .	Members of the Humane Society
Millet . . . . .	The First Steps
Van Dyke . . . . .	Baby Stuart
Coreggio . . . . .	Holy Night
Landseer . . . . .	Saved
Le Rolle . . . . .	The Arrival of the Shepherds
Holmes . . . . .	Can't you Talk?

*Third and Fourth Years*

Millet . . . . .	Shepherdess Knitting
Boughton . . . . .	Pilgrims Going to Church
Troyon . . . . .	Return to the Farm
Millet . . . . .	The Sower
Landseer . . . . .	Shoeing the Bay Mare
Millet . . . . .	The Angelus
Bonheur . . . . .	Oxen Plowing
Hoffman . . . . .	Christ and the Doctors
Boughton . . . . .	Pilgrim Exiles
Le Rolle . . . . .	The Shepherdess
Reynolds . . . . .	Age of Innocence
Renouf . . . . .	The Helping Hand

*Fifth and Sixth Years*

Millet . . . . .	The Gleaners
Bonheur . . . . .	The Horse Fair
Watts . . . . .	Sir Galahad
Breton . . . . .	Song of the Lark

*Seventh and Eighth Years*

Reni . . . . .	The Aurora
Corot . . . . .	Dance of the Nymphs

*Catalogues Pertaining to Pictures*

1. Bureau of University Travel, Trinity Place, Boston. Prints, size  $5\frac{1}{2} \times 7$  inches, 1 cent each, 80 cents per 100. Good classified catalogue.
2. G. P. Brown, Beverly, Mass. Pictures similar to the Perry pictures; price 1 cent each in lots of 10 or more; \$1 for 120.
3. Houghton Mifflin Company, Boston; Portrait catalogue, price 10 cents. *Portraits of Authors and Their Homes*, price 20 cents for 10; 1 cent each in lots of 100.
4. Perry Picture Company, Malden, Mass. Reproductions of famous pictures and noted persons and places, forest trees, Indian portraits; price 1 cent each in lots of 10 or more; 120 for \$1. A 5-cent size can also be secured. Catalogue costs 15 cents.

*Four Good Books on Pictures*

NEALE, O. W. — *Picture Study in the Grades*; Neale Publishing Company, Stevens Point, Wis. Price, \$2.25.

HURLL, ESTELLE M. — *How to Show Pictures to Children*; Houghton Mifflin Company. Price, \$1.00.

CADY, M. R., AND DEWEY, J. M. — *Picture Stories from the Great Artists*; The Macmillan Company. Price, \$1.00.

CARPENTER, F. L. — *Stories Pictures Tell*, 8 vols., one for each grade, Rand McNally and Company. Prices — \$.55, \$.60, \$.65, \$.70, \$.75, \$.80, \$.85, \$.90.

*An Eight-Year Course of Pictures<sup>1</sup>*

## First and Second Grades

Fall.	Four Little Scamps . . . . .	Adam
	The Escaped Cow . . . . .	Dupré

<sup>1</sup> Reprinted from the *Course of Study for Common Schools* by permission of the State Department of Education, Madison, Wisconsin.

Hiawatha.....	Norris
Can't You Talk?.....	Holmes
The Pet Bird (or Little Brother) .....	Von Bremen
Piper and Nut Cracker.....	Landseer
<i>Winter.</i>	
Family Cares.....	Barnes
Baby Stuart.....	Van Dyke
Two Mothers.....	Gardner
The Nativity (or The Shepherdess) .....	Le Rolle
Madonna of the Chair.....	Raphael
<i>Spring.</i>	
Feeding the Birds.....	Millet
Miss Bowles.....	Reynolds
Rain, Rain, Go Away.....	Smith
Primary School in Brittany.....	Geoffrey
The First Step (or Churning).....	Millet
Saved.....	Landseer

## Third and Fourth Grades

<i>Fall.</i>	The Gleaners.....	Millet
	Melon Eaters.....	Murillo
	Don Balthazar Carlos.....	Velasquez
	The Little Nurse.....	Von Bremen
<i>Winter.</i>	Departure of the Mayflower.....	Bayes
	Landing of the Pilgrims.....	Rothermel
	Washington Crossing the Delaware .....	Lentz
	Pilgrims Going to Church.....	Boughton
	Christmas Chimes.....	Blashfield
	The Sheep.....	Millet
<i>Spring.</i>	Two Mothers.....	Gardner
	The Village Blacksmith .....	Taylor
	Young Sculptor.....	Angelo
	Caritas, Thayer, or Dance of the Nymphs.....	Corot
	The Strawberry Girl.....	Reynolds
	Who'll Buy a Rabbit?.....	Von Bremen

## Fifth and Sixth Grades

<i>Fall.</i>	The Old Shepherd's Chief Mourner . . . . .	Landseer
	Plowing . . . . .	Bonheur
	Alexander and Diogenes . . . . .	Landseer
<i>Winter.</i>	Angel Heads . . . . .	Reynolds
	The Boy Lincoln . . . . .	Eastman Johnson
	Sir Galahad . . . . .	Watts
	Repose in Egypt . . . . .	Van Dyke
<i>Spring.</i>	Singing the Declaration of Independ- ence . . . . .	Trumbull
	The Angelus . . . . .	Millet
	The Spinner . . . . .	Maes
	Vagabond Musicians . . . . .	Mazzini
	The Windmill . . . . .	Ruysdael

## Seventh and Eighth Grades

<i>Fall.</i>	The Sower . . . . .	Millet
	The Song of the Lark . . . . .	Breton
	The Angelus . . . . .	Millet
	Sheep-Autumn . . . . .	Mauve
<i>Winter.</i>	Christ and the Doctors . . . . .	Hoffman
	Sistine Madonna . . . . .	Raphael
	Washington at Trenton . . . . .	Faed
	The Horse Fair . . . . .	Bonheur
	Joan of Arc . . . . .	Le Page
<i>Spring (Sculpture).</i>	Appeal to the Great Spirit . . . . .	Dallin
	The Shaw Memorial . . . . .	St. Gaudens
	The Minute Man . . . . .	French
	John Alden and Priscilla . . . . .	Boughton
	Return to the Farm . . . . .	Troyon

*E. Literary Selections Arranged by Grades<sup>1</sup>*

## Grades I and II

*Fall.* Baa, Baa, Black Sheep — Little Bo Peep — Simple Simon — The Wind (Stevenson) — The Wind (Rossetti) — Where Go the Boats? — There Was a Man in Our Town — Sing a Song of Sixpence — Little Boy Blue.

*Winter.* Little Jack Horner — Little Miss Muffet — Jack and Jill — The Owl and the Pussycat — Foreign Children — Ride a Cock-horse — Old King Cole — Wynken, Blynken, and Nod.

*Spring.* Rock-a-bye-Baby — My Shadow — Bobby Shafto — Humpty Dumpty — All Things Beautiful — The Swing — Ding Dong Bell — Little Tommy Tucker.

## Grades III and IV

*Fall.* A Boy's Song — America — Seven Times One — Lady Moon — Sweet and Low — One, Two, Three.

*Winter.* O Little Town of Bethlehem — The Wind and the Moon — November — To-day — A Visit from St. Nicholas — Jack Frost.

*Spring.* The Wonderful World — Fairy Folk — The Thrush — Bobolink — The Bluebird — The Night Wind.

## Grades V and VI

*Fall.* September — Old Ironsides — Robert of Lincoln — The Tree — October's Bright Blue Weather — Columbia the Gem of the Ocean.

*Winter.* The Village Blacksmith — The Flag Goes By — Home Sweet Home — The First Snowfall — The Children's Hour — Concord Hymn.

*Spring.* The Year's at the Spring — Warren's Address — May — The Barefoot Boy — The Bluejay — Marjorie's Almanac.

<sup>1</sup> Printed by permission of State Department of Education, Madison, Wisconsin.

## Grades VII and VIII

*Fall.* Sheridan's Ride — Columbus — The Arrow and the Song — The Burial of Sir John Moore — At Morning — The Chambered Nautilus.

*Winter.* The Bugle Song — O Captain, My Captain — Recessional — Gettysburg Speech — Opportunity — Finding of the Lyre.

*Spring.* The Star Spangled Banner — Breathes There a Man — Wolsey's Farewell to His Greatness — Hark, Hark, The Lark — Battle Hymn of the Republic — A Song of Clover — The Quality of Mercy.

*Books Containing Most of the Above Poems*

1. HARRIS, A. V., AND GILBERT, C. B. — *Poems by Grades* (Grades 1-4); Chas. Scribner's Sons. Price, \$.80
2. HARRIS, A. V., AND GILBERT, C. B. — *Poems by Grades* (Grades 5-8); Chas. Scribner's Sons. Price, \$.85
3. *Poems for Memorizing* (Grades 1-9); Houghton Mifflin Company. Price, \$.45
4. REPPLIER, AGNES — *A Book of Famous Verse*; Houghton Mifflin Company. Price, \$.75
5. *Selections for Study and Memorizing*; Houghton Mifflin Company. Price, \$.45
6. SHUTE, KATHERINE H. — *The Land of Song — For Primary Grades*; Silver, Burdett and Company. Price, \$.35
7. SHUTE, KATHERINE H. — *The Land of Song — For Lower Grammar Grades*; Silver, Burdett and Company. Price, \$.50
8. WIGGIN, KATE D., AND SMITH, NORA A. — *Golden Numbers*; McClure Company. Price, \$2.00
9. WIGGIN, KATE D., AND SMITH, NORA A. — *The Posy Ring*; Houghton Mifflin Company. Price, \$1.00

*F. Legal Holidays in the Various States — 1925<sup>1</sup>*

Jan. 1 — New Year's Day — All States except Kansas.

Jan. 8 — Battle of New Orleans — Louisiana.

Jan. 19 — Lee's Birthday — Ala., Ark., Fla., Ga., N. C., S. C., and Va. (Called Lee-Jackson Day.)

Feb. 12 — Lincoln's Birthday — Ariz., Cal., Colo., Conn., Del., Ill., Ind., Iowa, Kansas, Ky., Minn., Mont., N. J., N. Mex., N. Y., N. Dak., O., Pa., S. Dak., Utah, Wash., W. Va., and Wis.

Feb. 14 — Admission Day — Arizona.

Feb. 22 — Washington's Birthday — All states.

Feb. 24 — Mardi Gras (Movable) — New Orleans and certain cities in Florida.

Mar. 2 — Texan Independence Day — Texas.

Mar. 4 — (1925, and every fourth year thereafter) — Inauguration Day — District of Columbia.

April 10 — Good Friday (Movable) — Conn., Fla., La., Md., Minn., N. J., Pa., and Tenn.

April 12 — Halifax Resolutions — North Carolina.

April 13 — Jefferson's Birthday — Alabama.

April 19 — Patriots' Day — Maine and Massachusetts.

April 21 — Battle of San Jacinto — Texas.

April 26 — Confederate Memorial Day — Alabama, Florida, Georgia, and Mississippi.

May 8 — (Second Friday) — Confederate Day — Tennessee.

May 10 — Confederate Memorial Day — North Carolina and South Carolina.

May 20 — Mecklenburg Declaration — North Carolina.

May 30 — Memorial or Decoration Day — All states except Ala., Ark., Fla., Ga., La., Miss., N. Mex. (usually observed), N. C., Okla., S. C., and Tex.

June 3 — Davis' Birthday — Ala., Fla., Ga., Miss., S. C., La., Tenn., Tex. (Confederate Memorial Day.)

<sup>1</sup> From The School Calendar of 1925, by special permission and arrangement with the American Book Company.

June 15 — Pioneer Day — Idaho.

July 4 — Independence Day — All states.

July 10 — Admission Day — Wyoming.

July 24 — Pioneer Day — Utah.

Aug. 1 — Colorado Day — Colorado.

Aug. 16 — Bennington Battle Day — Vermont.

Sept. 7 — (First Monday) — Labor Day — All states.

Sept. 9 — Admission Day — California.

Sept. 12 — Defenders' Day — Maryland.

Oct. 12 — Columbus Day — Ala., Ariz., Ark., Cal., Colo., Conn., Del., Idaho, Ill., Ind., Ky., Mass., Md., Me. (School Holiday), Mich., Mo., Mont., Neb., Nev., N. H., N. J., N. Mex., N. Y., O., Okla., Ore., Pa., R. I., Tex., Vt., Wash., and W. Va.

Oct. 31 — Admission Day — Nevada.

Nov. 1 — All Saints' Day — Louisiana.

Nov. 3 — (First Tuesday after first Monday) — General Election Day — All states except Ala., Ark., Conn., D. C., Ga., Idaho, Kans., Ky., Mass., Miss., Nebr., N. Mex., N. C., Ohio, Utah, and Vt.

Nov. 6 — (First Friday) — Pioneer Day — Montana.

Nov. 26 — (Last Thursday) — Thanksgiving Day — All states.

Dec. 25 — Christmas Day — All states.

Arbor Day (Variable) — Ariz., Colo., Maine, Nebr., N. Dak., R. I., Utah, and Wyo.; observed in schools of many other states.

Special Local Holidays — In some states, State Election Day, Primary Election Day, etc., are also observed as holidays. *Note:* There is no National Holiday. Any day designated by the President becomes a legal holiday only in those States that provide for it by law. New Year's Day, Christmas Day, Decoration Day, July Fourth, and Labor Day are observed as Legal Holidays in the District of Columbia and in all Government Offices, Reservations, Forts, and Navy Yards.

*G. Sample Programs for Special Occasions<sup>1</sup>*

If practicable, every rural teacher should arrange to have fitting observance of Memorial Day, Washington's Birthday, Lincoln's Birthday, Thanksgiving Day, Arbor Day, Christmas, Armistice Day, Mothers' Day (have a mothers' meeting the first Friday in October and the first Friday in May, if possible), Halloween, and Columbus Day. No doubt some teachers will find the following programs suggestive, at any rate:

**I. THANKSGIVING DAY — A SUGGESTIVE PROGRAM**

1. Song — America
2. Story of the Pilgrims
3. Reading — The President's or the Governor's Proclamation or both
4. Song — "O, the Merry Harvest Time." — WEBB
5. Recitation — "The Landing of the Pilgrims" — HEMANS
6. Recitation — "The Bill of Fare" — EUGENE FIELD
7. Talk — "The True Meaning of Thanksgiving Day" — by some member of the community, or by an older pupil
8. Song — "One Hundredth Psalm"
9. Reading — "The Frost is On the Pumpkin" — RILEY
10. Reading — "The First Thanksgiving" — BROTHERTON
11. Recitation — "We Thank Thee" — Five pupils
12. Song — "Harvest Home"
13. Talk — "Why I Am Thankful" — By an older pupil
14. Reading — "The Master of the Harvest" — GATTY
15. Recitation — "Thanksgiving Day" — CHILD
16. Song — "Star Spangled Banner"

— O —

For flowers that bloom about our feet;  
For tender grass, so fresh, so sweet;

<sup>1</sup> These programs, with some modifications, are taken from a bulletin published by the State Superintendent of Schools, Columbus, Ohio.

For song of bird, and hum of bee ;  
 For all things fair we hear and see,  
 Father in heaven, we thank Thee !

For blue of stream and blue of sky ;  
 For pleasant shade of branches high ;  
 For fragrant air and cooling breeze ;  
 For beauty of the blooming trees,

Father in heaven, we thank Thee !

RALPH WALDO EMERSON

## II. ARMISTICE DAY — A SUGGESTIVE PROGRAM

1. Song — America
2. Salute to the Flag
3. Reciting “Pledge of Allegiance” in unison
4. Reading — Wilson’s War Message : “Why We Went to War”
5. Recitation — “In Flander’s Fields” — LIEUT. COL. McCREA
6. Songs — “Over There” and “Smiles”
7. Recitation — “The American’s Creed”— WALTER TYLER PAGE  
 (With an account of how it came to be written)
8. Story — “Pershing at Lafayette’s Tomb” (Colonel C. E.  
 Stanton’s sentiment — “We are here, Lafayette.”)
9. Song — “America, the Beautiful”
10. Talk — “Our Community’s Record” — By some citizen
11. Recitation — “Old Glory” — JAMES WHITCOMB RILEY
12. Songs — “The Marsellaise” and “There’s a Long, Long Trail”

### APPROPRIATE STORIES

Lincoln’s Letter to a Mother Who Lost Five Sons in the Civil War — Harry Lauder’s Visit to His Son’s Grave — A Message from a French School Girl.

Valuable material for such programs may be found in *Lest We Forget* and *Winning a Cause*, published by Chas. Scribner’s Sons, New York.

## OTHER SUITABLE POEMS

The Peace Maker — JOYCE KILMER  
Mystic Meaning of the Flag — SUMNER  
The Anxious Dead — JOHN MACCRAE  
Ye Are Not Dead — FRANK HERING  
America's Answer — R. W. LILLARD  
The Mother of a Soldier — FOLGER MCKINZEY  
As the Trucks Go Rollin' By — LANCELOT SUCKERT  
In Flander's Field (another version) — LIEUT. J. A. ARMSTRONG,  
Beloit, Wis.

*H. Helpful Journals and Newspapers for Teacher and Pupil*

1. Your own State Journal of Education.
2. *American Childhood* — Milton Bradley Company. Home Office at Springfield, Mass.
3. *Normal Instructor and Primary Plans* — F. A. Owen Company, Home Office at Dansville, New York. \$2.00
4. *Journal of National Education Association*, Washington, D. C. \$2.00
5. *Journal of Educational Method* — Teachers College, Columbia University. \$3.00
6. *Primary Education — Popular Educator*, Educational Publishing Company, Boston, Mass. \$2.00
7. *Elementary School Journal* — University of Chicago. \$2.00
8. *Country Gentleman* — Curtis Publishing Company, Philadelphia. \$1.00
9. *National Geographic Magazine* — National Geographic Society, Washington, D. C. \$4.00
10. *Popular Science Monthly* — 225 West 39th Street, New York City. \$2.50
11. *School Arts Magazine* — The Davis Press, Worcester, Mass. \$3.00
12. *The Pathfinder* — Washington, D. C. \$1.00
13. *The Mentor* — Crowell Publishing Company. \$4.00

(*For the Children, especially*)

14. *American Boy* (monthly) \$2.00
15. *Bird-Lore* (bi-monthly) \$1.50
16. *Current Events* (weekly — 10 months) \$.50
17. *Little Folks' Magazine* (monthly) \$2.00
18. *St. Nicholas* (monthly) \$4.00
19. *Youth's Companion* (weekly) \$2.50
20. *Boy's Life* (monthly) \$2.00
21. *Compton's Pictured Newspaper* (monthly) \$1.50
22. *Our Dumb Animals* (monthly) \$1.00
23. *Child Life* (monthly) \$3.00
24. *John Martin's Book* (monthly) \$4.00

### *I. Bulletins for Rural Teachers*

Teachers may easily secure many useful bulletins issued by the government at Washington. Every rural teacher should send first for Bulletin No. 23 — 1924, entitled *Government Publications Useful to Teachers*. This will cost you ten cents. Make all remittances for bulletins payable to the Superintendent of Documents, Government Printing Office, Washington, D. C. Remit in currency or by postal money orders. Do not send postage stamps. The Superintendent of Documents issues over seventy free price lists on such subjects as Foods and Cooking, Farmers' Bulletins, Education, Indians, Birds and Wild Animals, Health, Maps, Children's Bureau, Insects, Plants, Farm Management, and many other subjects.

#### Home Economics Circulars

No. 5 — Government Publications of Interest to Home Economics Teachers and Students — 5 cents

No. 13 — Home Economics in Rural Schools — 5 cents

#### Home Education Circulars

No. 1 — 1000 Good Books for Children — 5 cents

No. 2 — Home Education by Means of Reading Courses — 5 cents

No. 3 — Parent-Teacher Associations — 5 cents

### Library Leaflets

- No. 3 — April, 1919 — Play and Playgrounds — 5 cents
- No. 6 — July, 1919 — Stories for Young Children — 5 cents
- No. 10 — March, 1920 — Education for Citizenship — 5 cents
- No. 13 — December, 1920 — Use of Pictures in Education — 5 cents
- No. 16 — May, 1922 — Rural Life and Culture — 5 cents
- No. 17 — February, 1923 — Project Method in Education — 5 cents
- No. 18 — March, 1923 — Visual Education — 5 cents
- No. 21 — June, 1923 — Home Economics — 5 cents
- No. 24 — July, 1924 — List of References on Money Value of Education
- No. 26 — August, 1924 — Rural Life and Culture — 5 cents
- No. 29 — November, 1924 — Play and Playgrounds — 5 cents
- No. 30 — January, 1925 — Education for Citizenship — 5 cents

### Miscellaneous Publications

- 1893 — American Library Association, Catalogue of 5000 volumes — 5 cents
- 1920 — Joy and Health Through Play — 5 cents
- 1924 — Community Score Card — 5 cents
- 1924 — Declaration of Independence — (Facsimile) — 15 cents

### Rural School Leaflets

- No. 10 — Organization of the One-Teacher School — 5 cents
- No. 11 — Objectives in Elementary Rural School Agriculture — 5 cents
- No. 14 — Rural Teacher Situation in the United States — 5 cents
- No. 15 — Educational Progress and the Parents — 5 cents
- No. 25 — Ypsilanti Kiwanis Club and the Country Schools — 5 cents
- No. 26 — Types of Courses of Study in Agriculture — 5 cents
- No. 35 — Improvement in Teaching Reading in Rural Schools — 5 cents

No. 35 — Publications of the U. S. Bureau of Education Pertaining to Rural Education — 5 cents

Teachers' Leaflets

No. 10 — Tendencies in Primary Education — 5 cents

No. 14 — Modern Language Teaching — 5 cents

No. 17 — List of Books for a Teacher's Professional Library — A Classified List of 100 Titles — 5 cents

Regular Bulletins

No. 25 — 1914 — Important Features in Rural School Improvement — 10 cents

No. 46 — 1914 — School Savings Banks — 5 cents

No. 23 — 1915 — The Teaching of Community Civics — 10 cents

No. 22 — 1917 — Money Value of Education — 15 cents

No. 54 — 1917 — Training in Courtesy — 10 cents

No. 11 — 1918 — A Community Center — What It Is and How to Organize It — 10 cents

No. 39 — 1919 — Training Little Children — 15 cents

No. 82 — 1919 — Motion Pictures and Motion Picture Equipment — 5 cents

No. 18 — 1920 — Lessons in Civics for the Six Elementary Grades — 15 cents

No. 34 — 1921 — Status of the Rural Teacher in Pennsylvania — 10 cents

No. 37 — 1921 — Malnutrition and School Feeding — 5 cents

No. 45 — 1921 — School Grounds and Play — 5 cents

No. 10 — 1922 — Supervision of Rural Schools — 15 cents

No. 32 — 1922 — A Program of Education in Accident Prevention — 10 cents

No. 1 — 1923 — Diagnosis and Treatment of Young School Failures — 10 cents

No. 9 — 1923 — Supervision of One-Teacher Schools — 10 cents

No. 36 — 1923 — Rural Education — 5 cents

No. 43 — 1923 — Games and Other Devices for Improving Pupils' English — 10 cents

*J. Educative Equipment Recommended for First Purchase<sup>1</sup>*

Blocks for building — Set divided into whole blocks, half blocks, pillars, bricks, columns, cubes, etc.

Chart printing outfit — (Sometimes listed as Sign Marker or Set of Rubber Type). An alphabet of capitals, small letters, and sets of figures; small letters at least one inch high.

Clock dial — Twelve inches or more in diameter.

Dissected map of the United States, in states — Each state cut on state lines; map 15 by 22 inches, or larger.

Duplicator (hectograph) — Makes reproductions from hand or typewritten copy; letter size.

Fraction disks — Sections printed in different colors; disks showing the complete unit, the half, the third, the fourth, the sixth, and the eighth; four inches or more in diameter.

Loom — Adjustable, 9 by 12 inches or larger; wooden needles and cotton roving for weaving.

Measures — Sets of balanced scales with scoop and weights; sets of liquid and dry measure; a tape measure; and a hardwood yardstick.

Model store outfit.

Number cards for drill in arithmetic — Size of type, one inch or more.

Paper for drawing, construction work, mounting pictures, printing, etc.

Paste — Quart jar; paste brushes with wooden handles.

Scissors — Nickel finish; the kind that fits the fingers easily; sharp points desirable.

Silent reading material — See list of "Commercial Educative Seat Work Equipment for Silent Reading," p. 546.

Toy money — Box with movable trays, one for each denomination.

<sup>1</sup> Appendices J. and K. are printed here through the courtesy of Miss Annie Reynolds, Specialist in Rural Education, Bureau of Education, Washington, D. C.

*K. Commercial Educative Seat Work Equipment for Silent Reading*

The types of equipment herein described are designed to help in recognizing words, in building sentences and stories, and in testing comprehension of material read.

1. Materials purchasable from publishers of readers — Publishers of primers and other readers used in the primary grades often provide materials especially adapted for use with their books. Schools purchasing primary readers should inquire about this equipment and, if available, obtain it.

2. Materials purchasable from school supply companies — A number of school supply houses offer seat work well adapted to reinforce the class work in reading. Teachers should secure catalogues from two or more supply houses and familiarize themselves with their offerings in order that they may select the materials best suited to their needs.

The following is a suggestive list of some of the best material at present available :

(1) Sets of stories — Each set contains a familiar story with illustrations and separate sentences for building duplicate stories.

(2) Self-verifying word matching — Only the appropriate word fits into the space left for it, thereby eliminating the necessity of careful inspection by the teacher.

(3) Standard sentence builders — Includes selected lists of primer and first reader words for building sentences.

(4) Copyrighted sets of special test and practice exercises recently placed on the market.

(a) "Study Period Projects." Laidlaw Bros., New York and Chicago. Several types of the material included are: a drawing vocabulary; material for booklet making; words and sentences for matching, requiring classification; cards for matching pictures and word groups; riddles followed by questions and directions; sentences with questions testing power to state conclusions without using words in the reading text; nursery rhymes with directions requiring measuring, cutting, use of ruler, etc.

(b) "The 'Guess my Name' Game." The Little Teacher Game

Co., 109 Lyon St., San Francisco, Calif. Sets consist of The Pocket Board, 30 T cards with pictures of familiar objects, 30 T cards with pictures and names of the above objects, 30 T cards containing verbs with appropriate pictures, and blank T's to be used by the teacher in preparing additional drills and tests in reading and other subjects.

## A PROFESSIONAL LIBRARY FOR THE RURAL TEACHER

### (CLASSIFIED LIST OF ONE HUNDRED TITLES)

- (1) — Helpful for beginners.
- (2) — Suggestions for later purchase.

#### I. THE GENERAL PROBLEM

1. BAGLEY, W. C., AND KEITH, J. A. H. — *An Introduction to Teaching* (2); The Macmillan Company. 1924.
2. BETTS, G. H., AND HALL, O. E. — *Better Rural Schools*; Bobbs-Merrill Company. 1914.
3. CARNEY, M. — *Country Life and the Country School* (1); Row, Peterson and Company. 1912.
4. FOUGHT, H. W. — *The Rural Teacher and His Work*; The Macmillan Company. 1917.
5. KIRKPATRICK, M. G. — *The Rural School from Within* (1); J. B. Lippincott Company. 1918.
6. PITTMAN, M. S. — *Successful Teaching in Rural Schools* (2); American Book Company. 1922.
7. THORNDIKE, E. L. — *Education: A First Book*; The Macmillan Company. 1912.
8. WOOFTER, T. J. — *Teaching in Rural Schools*; Houghton Mifflin Company. 1917.

#### II. ELEMENTARY EDUCATIONAL PSYCHOLOGY

9. BETTS, G. H. — *The Mind and Its Education*; D. Appleton and Company. 1923.
10. CAMERON, E. H. — *Psychology and the School*; The Century Company. 1921.
11. COLVIN, S. S. — *The Learning Process*; The Macmillan Company. 1911.

12. JAMES, W.—*Talks to Teachers on Psychology*; Henry Holt and Company. 1902.
13. KILPATRICK, W. H.—*Foundations of Method*; The Macmillan Company. 1925.
14. LA RUE, D. W.—*Psychology for Teachers*; American Book Company. 1920.
15. STRAYER, G. D., AND NORSWORTHY, N.—*How to Teach* (2); The Macmillan Company. 1917.
16. WOODROW, H.—*Brightness and Dullness in Children*; J. B. Lippincott Company. 1919.

### III. BUILDING AND EQUIPMENT

17. AYERS, M., WILLIAMS, J. F., AND WOOD, T. D.—*Healthful Schools*; Houghton Mifflin Company. 1918.
18. CHALLMAN, S. A.—*The Rural School Plant*; The Bruce Publishing Company. 1917.
19. DRESSLAR, F. B.—*School Hygiene*; The Macmillan Company. 1913.
20. SHOWALTER, N. D.—*A Handbook for Rural School Officers*; Houghton Mifflin Company. 1920.

### IV. THE COMMUNITY CENTER AND RURAL LIFE

21. BAILEY, L. H.—*The Country Life Movement in the United States*; The Macmillan Company. 1911.
22. CUBBERLEY, E. P.—*Rural Life and Education*; Houghton Mifflin Company. 1914.
23. GALPIN, C. J.—*Rural Life*; The Century Company. 1919.
24. HANIFAN, L. J.—*The Community Center* (2); Silver, Burdett and Company. 1914.
25. *Report of the Commission on Country Life*; Sturgis and Walton Company. 1911.
26. WARD, E. J.—*Social Center*; D. Appleton and Company. 1913.

### V. TEACHER PERSONALITY

27. CALL, A. P.—*The Freedom of Life*; Little, Brown and Company. 1905. (And other books by same writer.)
28. HYDE, W. D.—*The Teacher's Philosophy*; Houghton Mifflin Company. 1910.

29. KING, H. C. — *Rational Living*; The Macmillan Company. 1905.
30. MARDEN, O. S. — *Peace, Power, and Plenty*; Thomas Y. Crowell and Company. 1909. (Other books by the same author.)
31. MCKENNY, C. — *The Personality of the Teacher*; Row, Peterson and Company. 1905.
32. WALTON, G. L. — *Why Worry*; J. B. Lippincott Company. 1909. (And other books by the same writer.)

#### VI. HEALTH OF THE TEACHER

33. FISHER, I., AND FISKE, E. L. — *How to Live* (1); Funk and Wagnalls Company. 1916. New edition, 1925.
34. GULICK, L. H. — *The Efficient Life*; Doubleday, Page and Company. 1909.
35. KELLOGG, J. H. — *Colon Hygiene*; Good Health Publishing Company. 1918.
36. MUSGROVE, C. D. — *Nervous Breakdowns, and How to Avoid Them*; Funk and Wagnalls Company. 1918.
37. RILEY, W. H. — *Headaches, and How to Prevent Them*; Good Health Publishing Company. 1918.
38. TERMAN, L. M. — *The Teacher's Health*; Houghton Mifflin Company. 1913.

#### VII. GENERAL TEACHING PROCEDURES

39. BETTS, G. H. — *Classroom Method and Management*; Bobbs-Merrill Company. 1917.
40. BURTON, W. H. — *Supervision and the Improvement of Teaching*, D. Appleton and Company. 1915.
41. COLEGROVE, C. P. — *The Teacher and the School* (1); Charles Scribner's Sons. 1922.
42. DAVIS, S. E. — *The Technique of Teaching* (1); The Macmillan Company. 1922.
43. EARHART, L. B. — *Types of Teaching* (2); Houghton Mifflin Company. 1915.
44. FREELAND, G. E. — *The Improvement of Teaching*; The Macmillan Company. 1924.
45. KENDALL, C. N., AND MIRICK, G. A. — *How to Teach the Fundamental Subjects*; Houghton Mifflin Company. 1915.
46. PARKER, S. C. — *Types of Elementary Teaching and Learning*; Ginn and Company. 1923.

## VIII. SPECIAL TEACHING PROCEDURES

47. BARNES, W. W. — *English in the Country School*; Row, Peterson and Company. 1913.

48. BROWN, J. C., AND COFFMAN, L. D. — *The Teaching of Arithmetic*; Row, Peterson and Company. 1924.

49. FREEMAN, F. N., AND DAUGHERTY, M. L. — *How to Teach Handwriting — A Teacher's Manual*; Houghton Mifflin Company. 1923.

50. KLAPPER, PAUL — *The Teaching of History*; D. Appleton and Company. 1926.

51. OSBURN, W. J. — *Corrective Arithmetic*; Houghton Mifflin Company. 1924.

52. SMITH, E. E. — *Teaching Geography by Problems*; Doubleday, Page and Company. 1921.

53. STONE, K. E. — *Music Appreciation, Taught by Means of the Phonograph*; Scott, Foresman and Company. 1922.

54. TIDYMAN, W. F. — *The Teaching of Spelling*; The World Book Company. 1920.

## IX. SCHOOL MANAGEMENT

55. BAGLEY, W. C. — *Classroom Management*; The Macmillan Company. 1910.

56. BARNES, INA — *Rural School Management* (1); The Macmillan Company. 1923.

57. MOOREHOUSE, F. M. — *The Discipline of the School*; D. C. Heath and Company. 1914.

58. SEARS, J. B. — *Classroom Organization and Control*; Houghton Mifflin Company. 1918.

59. WILKINSON, W. A. — *Rural School Management* (1); Silver, Burdett and Company. 1917.

## X. THE PROBLEM OF STUDY

60. BORAAS, J. — *Teaching to Think*; The Macmillan Company. 1922.

61. EARHART, L. B. — *Teaching Children to Study*; Houghton Mifflin Company. 1909.

62. HALL-QUEST, A. L. — *Supervised Study in the Elementary School*; The Macmillan Company. 1924.

63. KITSON, H. D. — *How to Use Your Mind*; J. B. Lippincott Company. 1916.
64. KORNHAUSER, A. W. — *How to Study*; The University of Chicago Press. 1924.
65. LYMAN, R. L. — *The Mind at Work*; Scott, Foresman and Company. 1924.
66. McMURRY, F. M. — *How to Study and Teaching How to Study* (2); Houghton Mifflin Company. 1909.
67. MILLER, H. L. — *Directing Study*; Charles Scribner's Sons. 1922.
68. THOMAS, F. W. — *Training for Effective Study* (1); Houghton Mifflin Company. 1922.
69. WHIPPLE, G. M. — *How to Study Effectively*; Public School Publishing Company. 1916.

#### XI. PROBLEM — PROJECT TEACHING

70. HOSIC, J. F., AND CHASE, S. E. — *Brief Guide to the Project Method*; World Book Company. 1924.
71. HOTCHKISS, E. A. — *The Project Method in Classroom Work*; Ginn and Company. 1924.
72. McMURRY, C. A. — *Teaching by Projects*; The Macmillan Company. 1920.
73. NATIONAL SOCIETY FOR THE STUDY OF EDUCATION — *Nineteenth and Twentieth Year Books*, Part I; Public School Publishing Company. 1921.
74. STEVENSON, J. A. — *The Project Method of Teaching* (2); The Macmillan Company. 1921.
75. STOCKTON, J. L. — *Project Work in Education*; Houghton Mifflin Company. 1920.

#### XII. EDUCATIONAL TESTS AND MEASUREMENTS

76. LINCOLN, E. A. — *Beginnings in Educational Measurements* (2); J. B. Lippincott Company. 1924.
77. MONROE, W. S., DEV OSS, J. C., AND KELLY, F. J. — *Educational Tests and Measurements*; Houghton Mifflin Company. 1924. (Revised edition.)
78. PATERSON, D. G. — *Preparation and Use of New Type Examinations*; World Book Company. 1925.
79. PRESSY, S. L., AND PRESSY, L. C. — *Introduction to the Use of Standard Tests*; World Book Company. 1922.

80. RUCH, G. M.—*Improvement of the Written Examination*; Scott, Foresman and Company. 1924.
81. TRABUE, M. R.—*Measuring Results in Education*; American Book Company. 1924.
82. WILSON, G. M., AND HOKE, K. J.—*How to Measure*; The Macmillan Company. 1921.

### XIII. PEDAGOGICAL STORIES

83. EGGLESTON, E.—*The Hoosier Schoolmaster*; Grossett and Dunlap. 1902.
84. MARTIN, G. M.—*Emmy Lou*; Grossett and Dunlap. 1902.
85. QUICK, H.—*The Brown Mouse* (2); Bobbs-Merrill Company. 1914.
86. SMITH, W. H.—*The Evolution of Dodd*; Rand, McNally and Company. 1883.
87. WELLS, H. G.—*The Story of a Great Schoolmaster*; The Macmillan Company. 1924.
88. WIGGIN, K. D.—*Rebecca of Sunnybrook Farm*; Houghton Mifflin Company. 1903.
89. WRAY, A.—*Jean Mitchell's School* (1); Public School Publishing Company. 1902.

### XIV. THE PUPIL'S HEALTH

90. ANDRESS, J. M.—*Health Education in Rural Schools* (2); Houghton Mifflin Company. 1919.
91. BURKS, J. D.—*Health and the School*; D. Appleton and Company. 1913.
92. HOAG, E. B., AND TERMAN, L. M.—*Health Work in the Schools*; Houghton Mifflin Company. 1920.
93. TERMAN, L. M.—*The Hygiene of the School Child*; Houghton Mifflin Company. 1914.

### XV. EDUCATIVE SEAT WORK

94. COBB, B. B., AND COBB, E.—*Busy Builders' Book*; Arlo Publishing Company. 1912. A book of written directions for the construction of things with pegs, sticks, squares, and circles.
95. HALE, ETHEL M.—*Lippincott's Silent Reading*; J. B. Lippincott Company. 1923.

96. MERTON, ELDA L.—*Study Period Projects*; Laidlaw Brothers. 1925.
97. PROUT, F. J., BOUMEISTER, E., MISCHLER, N., RENNER, H.—*Thought Test First and Second Readers, with supplementary seat work book*; University Publishing Company. 1924.
98. SMITH, NILA B.—*Picture-Story Reading Lessons, Grade One*; World Book Company. 1925.

#### XVI. ENCYCLOPEDIAS

99. COMPTON'S PICTURED ENCYCLOPEDIA. 10 volumes, 4500 pages. Published by F. E. Compton and Company. 58 E. Washington Street, Chicago. Price, \$55.00.
100. THE WORLD Book. 10 volumes, 6528 pages (1). Published by W. F. Quarrie and Company. 86 East Randolph Street, Chicago. Price, \$57.50.



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